



Tom Swift and His Jetmarine

(The second book in the Tom Swift Jr series)

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CHAPTER 1

A MYSTERY AT SEA

THE RED SIGNAL flashed on the remote control box of the Swifts' private TV network. A blond youth of eighteen with deep-set blue eyes unhooked his long legs from the rungs of a stool and swung away from a drawing board to which was tacked the blueprint of a submarine. He flicked on the videophone.

"What's up?" Tom Swift asked Kaye, Swift Enterprises' Key West telecaster, as the man's grim face settled into focus on the screen.

"Another Caribbean ship attack, Tom. It's the ninth so far." Walking in front of some palm trees, the telecaster continued, "I'm at Marlin Bay, talking to survivors. I have bad news. A passenger freighter, the Nantic, has been sunk. Your chief engineer is among those missing!"

"Hank Sterling!"

"He's reported lost along with the captain and purser. The rest were picked up in lifeboats." Kaye passed the microphone to a stout man who was saying nervously, "—but I really don't know what happened. Neither does anyone else on board. I was sitting on deck reading when—poof!—everyone blacked out! As I came to, the ship was sinking and I got into one of the lifeboats. A schooner picked us up."

"Did you hear any gunfire, any explosions before the blackout?" Kaye asked him.

"No. Nothing like that. Just a sort of buzzing noise, like you hear around those big electric transformer stations."

"Do you think the missing men might be in other boats that weren't picked up?" Kaye questioned.

"It's possible."

A Coast Guard officer stepped into view. He told Kaye that survivors of similar attacks on other vessels had also mentioned hearing an odd sound just before everyone had blacked out.

"In those attacks the robbers took various valuables before the passengers revived," the officer said. "But they didn't sink the ships." The officer paused, looking off-camera.

"I've just been told that the captain and purser have been located among the survivors. But no word on the other one."

"Thanks, Graham," Tom said to the video newscaster, his voice husky with emotion.

"I'm signing off now." Switching off the videophone, Tom dashed out of the lab-office, which was annexed to the huge underground hangar that lay beneath Swift Enterprises' private airfield. Reaching the aircraft runway above, he leapt onto one of the moving ridewalks that criss-crossed the four-mile-square facility and was whisked rapidly toward the office he shared with his father. His anxiety for Hank Sterling increased by the minute.

"The news will be a shock to Dad," Tom murmured worriedly. Hank Sterling's late

father had been Damon Swift's closest friend for thirty years. They had worked and fought their way together through countless tight situations concerning Swift Enterprises and its numerous affiliates. In the several branches of Swift Enterprises throughout the country they had installed a private satellite-linked TV network, each videophone staffed by Swift employees who, like Graham Kaye, were broadcast professionals. Recently, John Sterling's son Hank had become Enterprises' chief of engineering, and a good friend to Tom. He and Tom had just returned from a dangerous trip to the Andes in Tom's Flying Lab.

At this moment Tom's usual smile of pride in his family's accomplishments was absent. His thoughts were centered entirely on the terrible climax to Hank Sterling's business cruise to the Dominican Republic in the Caribbean. Hank had intended to discuss some engineering concerns, regarding the licensed local manufacture of Swift aircraft, with the Dominican government in the relaxed, vacationlike environment of the cruise. That accomplished, he was now the latest victim of the strange attacks that had plagued not only the Caribbean, but the Gulf of Mexico and the Atlantic seaways off America's southeastern coast.

Arriving at the multistory main administration building, Tom made for the office like a whirlwind. His mad dash was stopped by Munford Trent, the Swifts' efficient secretary. "Your father's not here," he said. "I've been trying to reach him by televoc at the underground hangar but he doesn't answer."

"That's where I'm just coming from," Tom responded. "I thought I ought to speak to Dad face to face, instead of using the televoc." The televoc device, a Swift invention, was a microminiaturized personal communicator that allowed the speaker and listener to be inaudible to others. The transciever was concealed in a silver pin usually clipped to the collar.

"Well," continued Trent, "an urgent phone call from the Defense Department has just come in—specifically from ONDAR."

Tom's eyes widened at this calm announcement. "The Office of National Defense Applied Research?"

"That's the one," was Trent's dry rejoinder. "Anyway, I have Admiral Krevitt cooling his heels on hold, so I had better—"

"I'll take it," Tom offered. Calming himself and picking up the phone, he greeted Krevitt, to whom he had spoken several times in the past. Tom explained that his father was temporarily away from his desk.

"I see," Krevitt said briskly. "Well, you're certainly perfectly adequate to convey the purpose of this call to your father."

"What can we do for you?"

"Tom, we need the Swifts' scientific help on these Caribbean attacks. Frankly we're baffled by the blackout technique." The admiral explained that his department had been unable to figure out by what method persons on the victim ships were knocked unconscious just before the looters came aboard.

"We've proven it's not an inside job," he said. "All passengers, as well as the ships, have

been thoroughly searched for the stolen items after the attacks. But that only makes the problem worse. Who are these mysterious raiders, and how can they disappear so quickly after plundering the ships? You know, we've tried to develop nonlethal 'blackout' weapons ourselves, but so far we haven't cracked the nut. I'm a practical man, but I can almost believe the attacks were engineered by space pirates!" Though his caller could not see it, Tom nodded. "We'll certainly help you all we can, Admiral Krevitt. Dad and I have a special reason of our own for wanting to clear up this mystery."

This would not be the first mystery Tom had solved. In his Flying Lab he had tracked down a group of clever spies responsible for the kidnapping of several scientists, returning to the United States from South America only weeks before.

"I've just heard about the attack on the Nantic, Tom, and the loss—that is, the disappearance—of Mr. Sterling." The officer expressed his concern and sympathy, stressing the efforts of ONDAR to investigate and counteract the attacks. He said that since the Nantic was the first ship to be sunk, his department believed that it might be because something had gone wrong in the attackers' plans.

"It's possible your Hank Sterling might not have blacked out for some reason," the admiral suggested.

"Which would mean," Tom added, "that the pirates, fearing he'd guessed their secret blackout method, took him prisoner."

"If it's true, and we can locate Mr. Sterling," Admiral Krevitt replied, "it may lead us to the hideout of those devils!"

"Nothing would suit me better than to find them," Tom said. Promising to put his father in touch with ONDAR, Tom concluded the conversation and he strode rapidly from the office.

I think I know where Dad is, Tom thought as he stepped back on the sidewalk. Moments later he was using his electronic key to beam open a sturdy door marked HIGH-PRESSURE LAB. Stepping within he was relieved to see his father look up from a workbench littered with notes and blueprints.

"I figured you had to be here, Dad," Tom remarked. "With all these metal pressure tanks around you, it's no wonder the televoc signal couldn't get through."

"Yes," replied Damon Swift. "I had an impulse to come here after lunch and do some work on the jetmarine intake configuration rather than going back to the office as I'd planned. Why, is someone looking for me?" Mr. Swift couldn't help noticing the disturbed expression on Tom's face.

Tom briefly told him the alarming news. Mr. Swift listened intently, his face turning pale with concern. "Hank missing!" he murmured. "Oh no!" Then he added, "But you say there's some hope?"

"Yes, according to Admiral Krevitt of ONDAR." Tom recounted the telephone conversation. "So there's a good chance he's alive and being held captive by the 'sea snipers,' as the papers call them."

"It's also possible he was set adrift," said Mr. Swift thoughtfully. "We don't know yet

whether all the lifeboats on the Nantic are accounted for, or if other floatation devices might have been on board."

"We don't know much at all," agreed Tom. "Let's take up the Sky Queen and scope out the general area of the ocean where the Nantic was attacked and sunk. That's step one." "And step two?"

"Step two is to speed up finishing the new two-man sub and go after those pirates! I don't think they can be tracked and taken by a surface vessel or aircraft."

"You think the pirates may be operating with a sub?" Mr. Swift questioned. "I assumed a plane or high-speed boat was involved."

"Maybe I've just got submarines on the brain," Tom replied, "but it makes sense, doesn't it? A sub is pretty invisible underwater unless you're in a sonar-defended region, and these vessels were all attacked in the open commercial sea-lanes. Maybe they get close to the surface and extend some sort of ray-projector like a periscope. A blackout ray knocks everyone out, then the pirates board the ship from a sub and loot it."

"Quite a system," Mr. Swift reflected, "and devised by men who won't be easy to capture."

"Suppose I warm up the Sky Queen while you phone Mother and the office to let them know the situation," Tom suggested.

Twenty minutes later the majestic solar-powered, jet-lifted craft, outfitted with a small crew, took off from Swift Enterprises' private airfield. The stratoship zoomed toward the Caribbean area at transonic speed, and in an amazingly brief time the search was on—high over the ocean one minute, then so low the Sky Queen barely cleared the waves. It did not miss an inch of the territory on which a lifeboat from the Nantic might be bobbing.

"I guess we'll have to admit defeat, Tom," Mr. Swift finally announced, dejected. "Turn her toward home and let's hope that Hank is still alive. Your mother was going to speak to Mrs. Sterling, and I should give her a call myself." Not a word passed between the two Swifts until the Sky Queen was being berthed at four o'clock. Then Tom spoke.

"I feel sure Hank Sterling's being held a prisoner by those pirates, Dad. With the atomic sub I could beat them at their own game."

"You certainly could, Tom," his father agreed. "I wish I could feel more hopeful than I do."

As Mr. Swift returned to the office he shared with Tom in the administration building, Tom decided to resume his work in the underground hangar annex, which was only steps away from the Sky Queen. Entering the lab, the young inventor was delighted to find his pal Bud Barclay draped on the arm of a comfortable leather chair, awaiting him with a humorously quizzical look on his face.

A handsome, dark-haired youth with a well-built, supple body, Bud was the great-grandson of Ned Newton, the close comrade of the first Tom Swift, who had gained worldwide fame as an inventor. Having moved to Shopton from San Francisco while in high school, Bud had worked with Tom at the Enterprises plant for a couple years under a special internship program. He was not only Tom's personal pilot and best friend, but

Tom's "sounding board." His quips and questions helped Tom clarify his thoughts. "Hi, Bud!" Tom greeted him. "Glad you're back, pal." Bud had made a morning run by air to Minneapolis to pick up a specially machined part for use on Tom's jetmarine. "Glad you're back," Bud retorted wryly, "after running off to the Caribbean in that overgrown jet of yours."

"I would have waited for you, Bud, but—"

"I heard about Hank," said Bud soberly. "If there's any chance he's alive, you can count me in on the rescue."

Tom nodded, grateful.

After an awkward silence between the two dedicated friends, Bud said: "Is that your new sub over there?" He gestured toward a plastic model on a nearby workbench.

"That's her," Tom said, "my two-man baby atomic sub."

Bud rose from his chair and picked up the model to examine it. "Baby is right. Isn't it a little small?"

Tom burst out laughing. "It's a model, bonehead! The real jetmarine is 28 feet long, 10 feet high at the highest, and 6 feet wide—which is still mighty small. It's near completion over on the far side of the hangar. You can't see it from here because the Queen's fueling trestle is in the way."

"Tell me more. I'd like to get the full pitch on the jetmarine and help you try it out, since we'll have to wait a while until the rocket is finished for our trip into space."

Some time before, an artificial meteorlike object had plunged into the Swift Enterprises grounds, as if directed there with uncanny precision. On the missile's side were mathematical symbols. When Tom and his father had deciphered the code, they discovered that it contained a message from the inhabitants of another planetary civilization who appeared to have a base on Mars. Ever since, Tom had dreamed of visiting these space beings. He didn't know that very soon, in an adventure to be recounted in *Tom Swift and His Rocket Ship*, he would make the important first step toward that goal—but first his newest invention, the jetmarine, must be perfected.

Tom's two-person submarine was to be manufactured and sold as a speed craft for safe ocean travel, opening the possibility of underwater commuter traffic to distant points such as Africa and Australia. The submarine was to operate on an entirely different principle of propulsion from the standard propeller type. A stream of water forced through special tubes under great pressure would be its means of propulsion.

"A hydraulic jet," Tom explained.

"Give it to me in first-grade science," Bud begged, renewing Tom's laughter.

"Remember when we were kids and filled balloons with water, then let go of them? Same kind of propulsion."

"All I got was a soaking!" Bud remarked. "But I get the general idea."

Tom took the jetmarine model from Bud and opened it up, pointing to its various features. The young inventor explained that the craft contained an atomic reactor utilizing Veranium, the scientifically baffling radioactive isotope which the Swifts had discovered in South America.

"As you can imagine, pal, it took a lot of doing to get permission to put even a midget reactor on an experimental high-speed sub," Tom noted. "But without it we wouldn't have the power to run the engines."

In order to protect the occupants of the jetmarine from deadly radiation, the whole power plant had been encased in a three-inch thickness of Tomasite. This strong, durable plastic with silicoid-ceramic characteristics had been developed by Tom and Mr. Swift on the basis of their spectrometric studies of the impenetrable shell of the space missile. Tom's mother had named the new substance in honor of Tom's namesake, his famous great-grandfather. Tomasite was not only light in weight but almost totally impervious to destructive gamma rays, and to infra-red heat rays as well. Furthermore, the complex molecules of the material had been artificially "sculpted" into interlaced microscopic cells that absorbed radar-frequency pulses and acted as a baffle for the sound frequencies used in sonar.

"Sounds terrific," Bud reflected. "But it looks like a wild genetic experiment to me—like a flattened cucumber, sitting upright on its narrow side, trying to give birth up front to a glass egg!"

"Right. With the small end of the egg facing forward, to decrease water resistance," Tom continued. "The nose is molded of transparent Tomasite." The outer hull was also sheathed in Tomasite, to prevent reflection of sound waves. Thus, the jetmarine could not be detected by sonar devices.

"This is wonderful, genius boy," said Bud, grinning. "But you still haven't told me what makes your water baby go."

Tom laughed. "I haven't? Well, ionizing radiation in the atomic pile charges up a set of semiconductor plates, producing a powerful electrical potential."

"Mucho electricity, in other words."

"Very mucho. It takes a lot of current to drive my new hydro-turbine, which has to attain extreme rates of rotation. The turbine sucks in water through intake vents in the front of the jetmarine, above and beneath the view-dome, and then flings the water out the rear thrust tubes at bullet speed."

"I'll take a dozen!" Bud quipped. "Is there room for me in that thing?"

"There'll always be room for you, Bud," said Tom seriously. "And thanks for lifting my spirits—I needed it."

Tom showed Bud the full-sized jetmarine, which was all but finished. Then, supper time coming on, the two left the underground hangar and headed toward the private dining room used by Enterprises management.

Suddenly Tom paused in midstep and touched a small, nondescript silver pin attached to his collar. "Tom here," he said, responding to the alert signal from his collar televoc pin. After a brief conversation with several glances skyward, completely inaudible to Bud, Tom signed off and turned to his friend. "The control tower has a small private jet on our radar approaching Enterprises. The pilot says he can't make the city airfield and needs to set down here!"

A caravan of emergency vehicles was already rushing onto the field, alerted by the

control tower.

"There he is!" Bud cried, pointing.

A tiny speck in the eastern sky grew rapidly into the form of a compact single-engine commuter jet, which Tom and Bud recognized as a Harrigan Eaglet.

"Pretty high-class," Bud commented enviously.

The jet was descending in a broad, lazy circle that did not suggest any emergency situation, but the boys knew better than to attempt to judge the circumstances on such superficial evidence. They watched, fascinated, as the plane set down gently on runway four.

"He's not braking!" Tom exclaimed. "He'll run down the emergency crew!" The jet seemed to swerve toward the phalanx of vehicles, crossing several runway lines. Then, at the last possible moment, the little jet swerved the opposite way again and screeched to a halt, sitting crosswise on runway eight.

"That stunt looked deliberate," muttered Tom angrily. Before Bud could respond, his friend had trotted off toward runway eight with clenched fists.

As the young inventor approached the Eaglet, he was surprised to see the shimmering heat signature above the engine exhaust. The pilot hadn't even cut his engine! As Tom came within thirty feet of the craft, the pilot throttled up and the jet rumbled off, keeping its distance as if mocking Tom. Through the cockpit dome Tom could see a sneering, youthful face under a flight helmet.

That crazy pilot! Tom thought. I'll wrap his wings around his neck! With a bound Tom broke into a full run, and in seconds was only a few yards from the plane.

"What do you mean, coming in—" he shouted out, but did not finish. Without warning the jet throttled up and pivoted, its deadly tail-blaze shooting straight at Tom!

CHAPTER 2

THE REPORTER'S PUZZLE

Bud stared horrified at the drama playing out on runway eight. There was no time for Tom to dodge out of the way!

Tom threw himself down flat on the runway tarmac. The jet's blazing exhaust passed above him, singeing his hair and the back of his t-shirt. He gasped for breath, his lungs burning with the pungent odor of jet fuel. Yet the worst was already over. The mystery jet accelerated away from Tom's prostrate form and in seconds was airborne on an eastward heading.

Bud ran up just as Tom was struggling to his feet. He steadied his friend. "You're all right?"

Tom coughed violently, wincing. "I'm okay," he gasped, "no thanks to that juvenile jet jockey!"

"Juvenile?"

"He looked about as young as you or I," Tom responded, "plus he acted like a spoiled kid with a toy. I had the impression this was all some sort of prank."

"Unbelievable!" Bud exclaimed. "He could have killed you, Tom. There must be more to this than meets the eye!"

"At any rate, the tower will have electronically recorded the jet's registration number, so we'll know shortly who our friend is—unless the plane's stolen!"

Proceeding to the control tower, Tom and Bud were soon in possession of the desired information. The Harrigan Eaglet was owned by the McIntosh and Dansitt Shipping Company of Baltimore. Its registered pilot: Sidney Dansitt.

"Sidney Dansitt," mused Bud. "Co-owner of the company?"

"More likely the co-owner's son or grandson," Tom commented.

A check of the Internet in Tom's office revealed that Sidney Dansitt, formerly of Baltimore, was now a resident of Walderburg, New York.

"Just down the highway," Bud commented.

Tom nodded. "College town—Grandyke University."

"You think old Sid is a student at the University?"

"He looked about the right age," Tom replied. "I'll ask Harlan to find out what he can. If Dansitt is registered there, I'll have him served with a complaint for his recklessness."

Harlan Ames, a former Secret Service agent, was Swift Enterprises' reliable chief of security.

No longer in the mood to work late at the plant, Tom drove home to have dinner with his family, joined by Bud. An unexpected but pleasing dinner guest was Bashalli Prandit, whom Tom had just begun getting to know.

Bashalli's dark eyes flashed as Tom told of the trials and adventures of the day. "What a wonderful thing it must be, to be a part of the Swifts!" she exclaimed. "When your hair is not being parted by falling meteors, you can be kidnapped, or roasted by a jet engine—who can resist such a life? But of course, with your friend missing, that is no joking matter," Bashalli added quickly.

"I call him Uncle Hank," said Sandy, Tom's sister, "even though he's just a few years older than I am. He always laughed." Sandy's eyes began to fill with tears.

Seeing that Tom's father was silent with his thoughts, Tom's mother spoke up. "His family has played a great role in all our lives. Lauren is taking the situation bravely, but Jonny is quite shaken—and Lauren has the new baby now." Lauren was Hank's wife, and Jonny his gradeschool-age son.

"I know Jonny," Bashalli commented. "He comes into The Glass Cat for coffee, and to ask me out. Skateboarding, you know." At this Tom looked up from his mashed potatoes. "But unfortunately he is not to my preference," Bashalli added.

"That little boy drinks coffee?" asked Mrs. Swift.

"No, he comes in for coffee—in a bag, to take home, with a fist of money."

"He's 'not to your preference,' Bash?" asked Sandy with a mischievous gleam. "Why's that?"

"Alas," replied the Pakistani, "he is not very clever. Perhaps he will improve in fifth grade. I rather think people get along best with people who do not seem stupid to them. Is that not a good rule?"

"Sounds good to me, Bash," Bud responded with a wink.

All eyes turned to Tom.

"I don't think you can make rules about who matches who," said the young inventor with a smile. "It's sort of a chemical thing."

Sandy rolled her eyes, but Bashalli said, "Absolutely! A very chemical thing." After a calculated pause, she added, "And so, perhaps you can turn the problem over to your chemical department."

Everyone joined in the laughter that ensued.

Working on some stubborn jetmarine problems in the hangar annex the following morning, Tom took a call from an unfamiliar name.

"This is Tom Swift."

A woman's voice came on. "Tom, you won't have heard of me—though everyone has heard of you, of course—but my name is Rita Scheering. I'm a reporter for Backgrounder magazine. You're familiar with Backgrounder?"

"Who isn't?" Tom retorted. "The magazine has been around since my great-grandfather's time."

"That's true—technically. We call ourselves the nation's leading news-weekly. Now, I'm not calling you for an interview—"

"Good, Miss Scheering, because I haven't the time."

"It's just that...well, I've come across some information that might have bearing on the Sea Snipers. And I know Hank Sterling is a family friend..."

Tom frowned, suspecting a hoax. "If you're trying to exploit this for some sort of personal gain, Miss Scheering—"

"Oh no," said the other party smoothly. "Well, maybe a bit of a gain, in that I want you to promise me exclusive rights to any interviews that might come about. You know, that sort of thing. And call me Rita."

Tom sighed. "For the sake of Mr. Sterling, I'll keep talking. But I like to see who I'm talking to."

There was a brief pause. "I'm at my computer, Tom, and I have a webcam. I'm sure you do too. We can talk that way."

"Very well."

The computer link was established, and in a few minutes Tom was able to look his caller in the eye. Rita Scheering turned out to be a robust, handsome woman of middle age, resembling a high school teacher more than a news reporter.

After Tom had acquiesced to her conditions, Rita resumed the discussion. "Now then, the Sea Snipers. Everyone wonders how they do it and where they go. But I started wondering: How do they pick their victims? Why those particular ships?"

"Wrong place at the wrong time, I guess," said Tom.

"Maybe—a crime of opportunity. But what if it's something else? What if it doesn't have to do with the ship and its location, but with the passengers?"

Tom shook his head impatiently. "You should read your own magazine. The FBI and the other investigators have been all over that angle. The various ship passengers and crew have nothing in common. Different home towns, different vacation destinations, different employers—nothing matches. Even the stolen goods are pretty much random, whatever can be carried off quickly and resold for value."

Rita smiled. "Yes. And here we see the difference between a reporter's mind and a police-type. Reporters are used to probing the backgrounds of things, to looking into all the dark—"

Tom interrupted her. "Please. Let's cut to the chase."

"Okay, the chase. Nine ships have been boarded. Every one of those ships had one passenger who had traveled through a particular spot of ocean some time within the preceding year and a half. Not during the cruise that was attacked, you understand, but a separate previous trip."

Suddenly intrigued, Tom squinted at the monitor screen. "What 'spot of ocean,' Rita?"

"A small one. I can give you the precise coordinates, but it's basically a little thirty-mile-square section in the Gulf of Mexico, in the Yucatan Channel just west of the extreme northwestern tip of Cuba. It's not on the common routes, but lately some of the shipping companies and cruise lines have taken to passing through it."

"But what's there? What's the significance?"

"Nothing's there! Just a few uninhabited rocks and a lot of water. As to the significance—that's the mystery." Tom waited quietly as she lit a cigarette and exhaled a plume of white smoke. "And there's more, Tom."

"What else?"

"Here's the clincher," Rita declared excitedly. "Despite the impression that's gotten around, only a small percentage of the passengers on the boarded ships had anything stolen from their cabins. But every one of my 'targetees' was a theft victim!"

"Except in the case of the Nantic—where they scuttled the ship." Tom's forehead bowed under the weight of the puzzle. "What could it mean? What are the Sea Snipers looking for?"

Miss Scheering gave a smug smile and waved her cigarette nonchalantly. "I was hoping that genius head of yours might have some ideas."

Tom shrugged. "There's no interest in the people themselves, it seems. Hank Sterling is the first kidnapping..."

"So we can safely rule out some mad scientist out to collect the best brains on earth."

"What we can rule in is the idea that the Snipers are looking for something that a person just might happen to have, because of where they traveled. Maybe something in a travel photo that somebody, some group, finds threatening. It could be the other thefts are just a blind."

"That's where I'd got to too, Tom," remarked Rita. "Pretty cloak-and-dagger."

Tom rubbed his chin, as was his habit when a problem resisted conquest. "Guess I'll have to let it percolate."

After promising to keep in touch with one another, Rita ended the call and the monitor went blank. Tom called up his father and then Harlan Ames, carefully detailing the conversation to each of them.

"I'd say your Miss Scheering is a pretty imaginative thinker," Ames commented, "but that doesn't mean she's wrong. I'll pass her findings along to the authorities investigating the attacks—including Admiral Krevitt at ONDAR."

"Thanks, Harlan," Tom said. "Don't forget that I gave my word that she would get an exclusive at the end of the process."

"I won't. And by the way," continued the security chief, "I've doped out some info on Sidney Dansitt. Just as you suspected, he's a grad student at Grandyke, in the Marketing Department. Lives off-campus in a rented house; stows his jet at a private airfield used by executive types outside Torrington. I chatted with his graduate advisor, who got very chatty after we warmed up."

"What did he have to say?"

"Basically that Sid is a sad case. He had top grades as an undergraduate in Maryland, and continued to do well when he was admitted to the architecture program at Grandyke. Then last year he moved off-campus and got himself switched to Marketing."

"That's quite a change of direction," Tom remarked.

"Sure is," Ames agreed. "His attendance and course work started falling apart, and there were complaints about him. I was able to get a rap sheet on our boy—he's been repeatedly stopped by the Walderburg police for various road violations. And this is all in the last year or so."

"Sounds like he's spinning out of orbit," said Tom. "I almost feel sorry for him."

Ames snorted. "Don't feel too sorry, Tom. Remember, his personal drama almost cost you your life!"

CHAPTER 3 CONTENTS UNDER PRESSURE!

TOM DECIDED that his plan for finding out more about Sidney Dansitt would have to be postponed temporarily. He had an appointment with one of the engineers, Sid Baker, for eleven that morning to test the maximum pressure which the hull of the jetmarine could withstand. It was already ten fifteen.

"Better get a move-on," he murmured to himself.

Leaving the underground hangar area, Tom hopped into his electric "nanocar," picked up Sid Baker, and drove across the grounds to the testing complex. Beaming his electronic key at the massive sliding door, he waited for it to open, then walked into the buzz of machinery and calm, yet intense, voices. Here all aspects of the jetmarine, and other inventions in the early stages of development, were being tested.

"They've lowered the sub into the big tank already," said Baker after consulting with the test foreman. "We're ready to go when you are, Tom."

Concentrating on the important test, Tom was about to switch on the tank's high-speed immersion pumps when he was startled by a booming voice coming from behind him. "Hey, Tom!" the unmistakable voice cried. "How's about a Texas snack afore you sink that new sub o' yours?"

Tom turned about and laughed. "Chow Winkler, you ole Texas panhandler! You know a feller ain't s'posed to eat when he's about to go in the water!"

Chow stopped so abruptly the submarine sandwich in his hands almost jolted to the concrete floor. "Why, that's right, boss! You fixin' to get inside that thing?"

The arrival of the former chuck-wagon cook, who was now chef for the Swifts, was always an "occasion," any time, any place. One of Tom's closest friends, the roly-poly man was known equally for his outgoing manner and his predilection for gaudy western-wear.

As Tom walked over to greet him, the cook, said:

"How come you talkin' Texas talk, Tom? If'n you're makin' fun o' the Lone Star State, I may jest cut your tabasco ration!"

"Don't do that, Chow," Tom cried. "I need the tabasco to give me the strength to look at your shirts!"

"Now this'n here," said Chow, "this'n comes from a li'l old shirtmaker outside o' Pampa. Ordered it off the Net." The shirt featured rows of highly reflective silver scallops against a background of robin's-egg blue.

Tom pretended to cover his eyes, but Chow continued unfazed. "So're you really goin' into the submarine today?"

"Sure am," Tom replied. "First comes the big pressure test. Then if we haven't sprung any leaks, I'm going to scuba down to her and test the underwater hatchway, which has an emergency mechanism for opening it by hand."

As the tank was filling, Tom had a few bites of the special submarine sandwich the colorful cook had prepared. Though he wasn't especially hungry, he didn't want to hurt Chow's feelings.

"Wanna know the secret of that yew-nique flavor, boss?"

"Sure."

"To th' peanut butter I added jest the littlest scootch o' chili powder. Mighty rich, if'n you ask me."

"Definitely!" said Tom wanly.

"Now Tom," continued the Texan, "you told me all about your jetmarine, an' it's a honey all right, but look here, if you're goin' to scout around the Gulf and the Caribbee, won't

you need a galley on board an' a cook to work her?"

"Sure would like to have you with us, Chow," Tom said affectionately. "But you'd better stay ashore holding a line to pull us out!"

The banter ceased when Sid Baker called out to Tom that the tank was full and ready for pressurization.

"Let's get started," Tom said excitedly. He then used his televoc to get in touch with two of his special friends in the plant, Arvid Hanson, head of the model-making division, and Wesley Beale, metallurgical engineer and chief of the materials science section. Both had expressed an interest in observing the test and interpreting the results. He also alerted Bud and Mr. Swift that the crucial test was about to begin.

While the others were making their way to the test complex, an overhead crane had lowered the multi-ton steel "lid" onto the tank, which was now filled with water that matched the composition of the oceans. With the lid latched into place by powerful motors, a carbon-steel piston was gradually forced into the waters of the tank by means of a screw-motion ramrod thick as a tree trunk. As more and more water was displaced by the piston, the pressure within the tank rose with aching slowness.

"Pressure equivalent, 500 feet down," Sid called out as Mr. Swift joined the knot of observers gathered next to Tom.

"Everything A-OK?" he asked his son, who gave a vigorous nod in reply.

The pressure climbed, punctuated by Sid's periodic announcements. One-quarter mile... one mile...two miles...

Wes Beale looked wide-eyed. "How much load do you plan to put on the sub?"

"Well, I could shoot for the equivalent of seven miles deep—the bottom of the Mariana Trench!" responded the young inventor. Then, as Wes's jaw dropped in amazement, he added, "But today I'll content myself with four miles, about 21,000 feet."

"So how do you know the jetmarine doesn't look like a squeezed-out toothpaste tube about now?" challenged Bud. "There's no window on the tank, and no TV monitor."

"We didn't want to introduce a weak spot into the wall of the tank, and a conventional camera wouldn't withstand the maximum pressure," Tom explained. "But we're getting a feed from various instruments inside the jetmarine."

"For example, criss-crossed lasers will tell us if the hull bows-in by as little as three angstroms," added Arv Hanson.

"A hair-breadth?" guessed Bud.

"Try three ten-billionths of a meter," said Mr. Swift with a smile.

"Look at it this way, Bud," Tom said. "At the degree of pressure we're dealing with, by the time you can see any deformation of the hull, it's way too late to do anything about it. The entire jetmarine could be turned into a metal pancake in a few milliseconds."

Bud gulped. "Carry on, Captain!"

A hush fell over the watching group as the pressure levels approached the maximum.

"Brand my fish fritters!" muttered Chow. "Whether or not the sub can take the pressure, I ain't so sure I can!"

"What's the verdict, Sid?" Tom asked softly.

"Tom," he replied, "the needles haven't budged from nominal all morning. Are you sure we remembered to plug 'em in?"

The group cheered loudly at Tom's success.

The first test over, the pressurizing process was reversed. Tom suited up into a scuba suit with airtanks. When the big tank had finally reached near-surface pressure, he awkwardly climbed a ladder onto a catwalk and lowered himself through a sealable access hatch in the tank lid, plunging down into the cool water.

"All okay in there?" came Arv Hanson's voice over Tom's mini-headset.

"All okay," Tom answered.

He switched on a pair of tiny flashlamps attached to either side of his faceplate. The jetmarine jumped out of the darkness at him like a lunging shadow. There was no light from its transparent nose, as the interior lights would have compromised the laser setup. His weight belt keeping him on the bottom of the tank, Tom trudged slowly toward the secondary hatchway in the side of the craft, where he was to test the emergency manual mechanism. He was reaching for the spring-activated latch cover when he paused. A strange sensation swept over him. His right arm seemed stuck in place, floating limply in the water. His lungs seemed unable to draw a full breath.

What's wrong with me? he thought, alarmed. With surprising effort, he lifted his left arm. Attached to his forearm were a number of instrument indicators, which Tom glanced over. He gasped—one indicator was in the red zone!

"Hey guys!" Tom exclaimed into his microphone. "The tank pressure's almost tripled! Ease off!"

He repeated his message several times, increasingly frantic as his legs grew numb and inert. But there was no answer! Tom tried to pivot and make his way to a position beneath the tank hatchway. To his horror his feet refused to respond.

And the tank pressure continued its slow, inexorable rise!

CHAPTER 4 SNIPER STRIKE

TOM'S BODY was failing him under the effects of pressure, but his mind remained clear. I can't make it to the lid hatch, he thought. Besides, with this pressure difference the automatic safety lock will have cut in.

He considered the possibility of somehow blocking the pressure piston. But he had nothing available strong enough to resist it—and at any rate, his feet could no longer carry him the required distance.

I can still move my left arm a little, his thoughts continued. If I'm going to get out of this alive, it will be with something already in arm's reach.

Repeating his urgent plea to the surface over and over—but pausing frequently to catch his breath—Tom resumed his original task. By wrenching his shoulder blades and curving his back, he found it easier to lift his left arm and force his hand against the spring release. Working the release with fingers dead as sausages was hard enough, but the real trial came when he had to grasp and pull down the lever behind the protective panel. There seemed to be no way to curl his hand around it. Finally, releasing the tension in his leg muscles, he allowed himself to fall forward against the hull. As hoped the action crunched his fingers against his open palm, with the lever in between.

That'll have to do, he thought desperately. Now the make-or-break test!

With the last of his fading strength, he wrenched his slumping body into a turn. It wasn't much of a turn, but it managed to pry the hatch lever down and away from its holding clasp. The reward was immediate as a dark, inch-wide strip appeared at the edge of the secondary hatchway, next to the lever mechanism.

It seemed like a journey of a thousand years and a thousand miles to reach that strip of darkness. Tom was able to squeeze his right elbow into it, forcing the hatch to open further. Then came his shoulder; then his chest.

I'm blacking out! he thought. But just at that moment he realized that his whole body was now within the emergency airlock. The controls were near his faceplate, and he could nudge the system into operation with small movements of his head.

If he didn't lose consciousness first.

Topside, Bud Barclay forced his eyelids open. His drifting thoughts slowly congealed: That's the test complex ceiling. He groaned and sat upright, the back of his head throbbing from its rendezvous with the concrete floor. Staggering to his feet, he saw Wes Beale leaning against a pylon nearby, barely conscious. The others were littered about the floor like discarded manikins—Damon Swift, Arv Hanson, Chow Winkler, Sid Baker, and several other Swift workers.

"Wha—what happened?" gasped Wes, almost inaudible. "Bud?"

"Dunno—" He took a step toward Wes, then stopped dead in his tracks. "Tom! Tom's down in the tank!" Bud ran unsteadily to the tank control panel, and his face turned white. "The pressure! It's—"

Bud frantically began to work the controls as Wes joined him. "We can't lower the pressure too rapidly or Tom will get the bends," Wes said, putting a hand on Bud's shoulder.

Bud shook him off. "Just tell me how to work this thing!"

Sid Baker joined them. Everyone was now regaining consciousness. "Listen to me, Bud. Even if we reduce the pressure now..." Sid didn't finish his thought.

"I'm not giving up," said Bud. "Tom Swift wouldn't give up on me."

"No," came another voice, softly. "He wouldn't." It was Tom's father.

They lowered the tank pressure as rapidly as the machinery would permit, meanwhile

informing plant security of the strange blackout. The phenomenon appeared to have affected everyone throughout a large fan-shaped area at the north end of the plant, which included the warehouse-like test complex. But persons in the control tower and administrative offices had not been affected. The plant infirmary team was already beginning to treat those who had been injured while collapsing during the siege, which seemed to have produced about twelve minutes of unconsciousness.

"I'd give anything to see inside that there tank!" Chow muttered, rubbing the swelling bruise on the side of his forehead. "But what I really want is a ding-dang miracle." Mr. Swift squeezed Chow's arm. "We'll know soon."

Just then the speaker mounted on the control panel crackled to life. "Is...is anyone there?"

"Tom!" cried Bud, so overcome that he couldn't speak for several moments.

Mr. Swift took the microphone. "Son, how are you doing?"

"Not bad—now. I'm inside the jetmarine. My brain is a little fuzzed out, but it looks like the pressure's close to normal out there."

"You stay where you are," commanded Damon Swift. "We're going to completely drain the tank."

Within five minutes the pressure tank was empty and its lid removed. Dripping and surrounded by shallow puddles, the sub waited to be boarded. She showed not a sign of her high-pressure ordeal.

A crane arm swung out over the jetmarine and lowered Bud to the main topside hatch in a medical lift-chair. He entered the craft, and Tom soon emerged to shouts and applause, Bud following behind. After they were conveyed out of the tank, Tom was given a preliminary examination by medics from the plant infirmary who declared him fit.

"Guess I'm lucky this time," Tom said.

"Guess so," Bud agreed.

"And now there's a couple mysteries I'd like solved," Tom continued. "What caused the blackout, and what caused the tank pressure to get screwy?"

"You think we got another o' them spies here, boss?" asked Chow.

Mr. Swift answered. "We can't rule it out as far as the blackout effect, since it suggests the modus operandi of the Sea Snipers. But there's a simpler explanation for Tom's problem in the tank."

"Way simpler," said Sid Baker, somewhat shamefaced. "When I started to lose consciousness, I remember falling across the pressure controls."

Tom clapped him on the back reassuringly. "Don't take it hard, Sid. Now that I'm several inches smaller all the way around, maybe I can buy cheaper clothes!"

"Say there," said Chow, "mebbe that'd work with me!" The hefty cowpoke angled his chin down to eye his generous waistline.

As Mr. Swift and the others attended to the reberthing of the jetmarine in the underground hangar, Tom and Bud hurried to the airfield control tower to check the automatic record of the large radarscope mounted there. As Tom played back the data on an auxiliary monitor, Bud looked over his shoulder anxiously. "What do you see, genius

boy? Anything with a skull-and-crossbones on it?"

"No," Tom replied. "Nothing in the sky, and nothing on the ground except a lot of blips that stop moving just before noon."

"Then maybe it's an inside job after all," Bud commented.

"Let's try another approach," responded the young inventor. "The ground-hugging radar scan doesn't cut off precisely at the perimeter fence. We get a bit of a reflection for another hundred feet or so, but it's weak and distorted. But I have some powerful image-enhancement software on my lab computer which I can access remotely, from this terminal."

"Sweet!" exclaimed Bud with a grin. "So you'll pump the raw data into your lab computer, and the result will come out here."

The processing and fine-tuning took only a matter of minutes. A radar shadow from the strip beyond the north perimeter fence began to form on the monitor.

"There it is!" Tom cried triumphantly, pointing at a squarish blip on the screen.

"What is it?"

"A car," Tom replied. "And not a big one, either—maybe a sports car. Look, you can see how it slowed and pulled over on the old Mansburg road."

"Hardly anybody uses that road," Bud remarked, "not since the new throughway was finished."

Tom advanced the electronic record slowly, second by second. "There he is, stopped off the road. He's waiting...oh, he wanted that car to pass by. Look, the reflectance signature changed—he must've opened a door on the driver's side. Getting close to the time now—there! See that flicker?"

"I guess so," said Bud. "Just barely."

"The scope was reacting to some kind of interference. It must be the Snipers' blackout device!"

"And there he goes!" Bud exclaimed. "Man, he must've peeled out at seventy!"

Tom nodded. "Sure. He stays just long enough to make sure the device had its effect—he probably had binoculars trained on somebody visible on the field—and then he jumps back in his sporty machine and makes his getaway."

Knowing that it was not possible as of yet to prove that the car that stopped had been involved in a crime, Tom passed his data on to Harlan Ames for "off-the-record" investigation by Enterprises' security.

"I'll share whatever we've got with the Shopton PD," Ames said, "and with ONDAR. It's quite a development, the Sea Snipers trying an attack on land."

"Yep," Tom agreed. "But fortunately, it doesn't seem they broke into the plant grounds."

"Strange. It almost seems like an act of mischief."

"Yeah, in fact—a prank!" A new thought had struck Tom. The capricious nature of the incident reminded him of his peculiar encounter with Sidney Dansitt. Could there be some connection between Dansitt, son of a shipping magnate, and the attacks on ocean vessels?

Tom spent the afternoon reviewing the tapes of the pressure test, his father at his side in

their shared office. The instrumental results disclosed not the slightest hint of any hull deformation or weakening, and microspectrometer readings confirmed that the Tomasite sheathing had been unaffected by the pressure, assuaging a major concern. The only negative result was a minor one, involving a slight compression of the dome sealant. A new sealant compound was already being applied to the jetmarine to rectify the flaw. "I'd say the jetmarine is ready to get its gills wet in the salty sea," Mr. Swift said, pride in his voice.

"Her shakedown cruise is going to be in the Gulf of Mexico," declared the young inventor. "I'm itching to take a look at that 'mystery spot' off Cuba."

Damon Swift nodded, suddenly thoughtful. "I know you are, son. And I think you should. But don't demand miracles of yourself. Mrs. Sterling has accepted that Hank probably went down with the ship without regaining consciousness. The investigators feel certain that some sort of demand would have been made by now if he had been kidnapped."

"Not that that will stop me."

"Not that that will stop you," chuckled Mr. Swift, throwing an arm about his son's shoulders.

Tom and his father strolled out into the afternoon sunlight, where they were met by Bud Barclay. Bud gestured off toward the far airfield. "Planning another trip in the Sky Queen?" he inquired. The huge metal doors that covered the underground hangar had been opened to the sky, as they were when the Flying Lab's berthing platform was about to be elevated to ground level.

"No, Bud," Mr. Swift replied, "I just had them open the overhead doors to improve the air circulation while we're replacing the sealant around the sub's view-dome. The chemicals can be toxic in concentration."

Suddenly Tom put a hand on his father's forearm. "We have a visitor!"

They had been hearing the subdued whine of a distant jet for several moments. Now the jet had tracked into view over the treeline, flying low and slow.

Bud grimaced in disgust. "Don't tell me!"

"It's Dansitt's jet, all right," said Tom, shading his eyes against the sun.

"He's been officially warned away from this airspace," declared Mr. Swift angrily. "I'll see him grounded!"

The jet made a casual circle around the plant, not crossing the property line. Tom could imagine the control tower personnel sternly ordering him away—and Dansitt making arrogant, mocking replies.

"He's lowering something from the fuselage," Bud observed. A dark, streamlined object was now suspended beneath the cockpit. "Good night, he's going in for a bombing run!" The jet had broken pattern and was streaking low, straight across the grounds of Swift Enterprises!

CHAPTER 5

A BOLO PUNCH

THERE WAS HARDLY time to react. Tom stiffened as Dansitt's jet shrieked over him, expecting an explosion. But in the back of his mind he also remembered his thoughts from earlier in the day. Could the device beneath the plane be, not a bomb, but the blackout-ray transmitter?

Neither was the case. After its single low pass over the Enterprises airfield, Dansitt's craft veered off and away, rapidly gaining altitude before it was lost to sight.

"Can you beat that?" said Bud. "What's that jerk up to?"

"I'm afraid I know exactly what he's up to," Mr. Swift responded. "I recognize the mechanism beneath the cockpit. It was the centerfold a few months ago in Invention & Technology."

"What is it, Dad?" asked Tom.

"A new high-definition digital camera for aerial spying," answered Mr. Swift. "It has a 'smart' processor that removes blurring and distortion due to motion, recording the image data on a tiny cartridge."

Tom rammed an angry fist into his open palm. "He's taking pictures of the jetmarine!" As Mr. Swift contacted Ames via televoc, Tom drew Bud aside and spoke in angry but muted tones. "You know, Bud, I think we've treated that poor misguided boy with gentleness and understanding more than long enough."

"I agree, Tom. I'm leaning toward a tough-love approach at this point."

"I want those image files in my hands before he can pass them on," said Tom with steel in his voice. "And the only way to do that—"

"Is to catch him!" finished Bud with a whoop.

The Enterprises ground crews were trained to move with lightning coordination, and a suitable jetcraft was already fueled and available. Not fifteen minutes had ticked away before Tom and Bud were aloft in the Kangaroo Kub.

This innovative jet plane incorporated a number of revolutionary design elements, including a pair of extensible secondary winglets that allowed the craft to amble through the air as slowly as a prop-driven Piper Cub while still under jet power, and to take-off and land on even the shortest of airstrips. But with its winglets folded back into the fuselage, the jet was fully capable of mach-level speeds. The craft was ordinarily carried along as a "baby" vehicle in the hangar-hold of the Sky Queen, but was easily unloaded for separate use.

"Now what, bloodhound boy?" asked Bud, who was in the pilot's position.

"Now we make Sid one sick and sorry rich kid," replied Tom with determination.

"We've captured the radarscope silhouette of his jet, and the Kub is outfitted with trans-

horizon radar. If he's not more than two states distant, we'll get an echo."

"But he may have landed already," Bud cautioned.

"Not a problem," commented Tom with a grin. "About a week ago Gina Emiliotti's shop finished the new thermospectron identifier and installed it on the Kub for testing—and this will be the best test imaginable!"

Bud shot Tom a wry sideways glance. "A new Tom Swift invention?"

"Oh, I just came up with the basic concept," responded Tom modestly. "It was Gina and her crew that made it work. Here, I'll show you the goods."

As the Kangaroo Kub continued in the direction of Dansitt's last known heading, Tom switched on a newly-installed instrument panel. "Y'see, flyboy, flying craft that leave exhaust trails—jets and rockets, basically—leave behind a heat signature in the air that's as distinctive as fingerprints, in theory. The thermospectron identifier uses a computer to extract specific thermal-frequency profiles from the radar bounceback, allowing us to 'see' the heat trail of one particular vehicle and follow wherever it goes, even down to a landing. The only variables are time and the wind—the trail eventually dissipates and becomes unreadable. But it hasn't been too long yet, and the air is fairly calm today."

Tom activated and adjusted the device. Several hazy bands appeared on a small readout screen. Most of the bands were wavy and diffuse, but one was relatively straight and well-defined. "There's our boy!" Tom exclaimed happily. "The trail passes right over the plant, then off to the north."

Bud made a baying sound as he swerved the Kub in the proper direction and gunned the throttle. Almost immediately the trans-horizon radarscope registered the telltale ping! of Dansitt's Harrigan Eaglet.

"The poor doonko doesn't know what he's up against," laughed Bud, pouring on the speed.

In minutes the Kangaroo Kub had sighted the target visually, and within a minute more they were flying abeam of it. As Dansitt sneered at him through the cockpit dome, Tom signaled the pilot to land. Dansitt's reply was a universally recognized digital signal, the gist of which was No! Then, without warning, he threw his stick forward and went into a screeching dive. Leveling out a few yards off the ground, he headed straight for a large red barn.

"You fool, you'll kill yourself!" Tom muttered.

Dansitt hopped the barn deftly and disappeared up a narrow valley. Bud hung on his tail, the Kub showing its agility. The valley narrowed further, splitting off in two directions ahead of the racing jets.

"Which way's he going to go?" Bud asked.

"When he starts to show his hand, pretend to follow," Tom answered tensely. "Then at the last second, flip to the other valley."

For a chilling instant both jets seemed to be headed straight into the first of the low hills that separated the left extension of the valley from the right. Then Dansitt banked rightward with the Kangaroo Kub hot on his tail. Just as the Eaglet appeared committed to the rightward course, Bud pulled back on the stick and veered left. The Kub seemed

to barely clear the hillside brush, but when Bud shoved the stick forward and leveled off, they were safely shooting down the leftward valley. Bud whooped as he saw that Dansitt's craft had made the same risky maneuver at the same moment, and was still in view ahead of the Enterprises craft.

The little valley continued to narrow, and for a few moments they followed a sparkling creek. But the valley was becoming shallower as well as narrower, and Tom and Bud knew that their quarry would soon have to break off and gain altitude.

Suddenly the radio burst to life.

"Hey there, Tommy, long time no see!"

Tom activated his microphone. "Dansitt, you know this jet can fly rings around yours, and I'm prepared to follow until I can force you down. Why not save yourself some trouble and cooperate?"

There was a pause as the Eaglet gained altitude, the Swift jet following tight.

"Say, Tommy, sorry about burning that nice blond hair o' yours. Probably ruined that stylish striped t-shirt, too, hmm? Send me the bill if you want."

"What I want, pal, is the digital output from that spy camera," replied Tom heatedly. Dansitt's response was brief. "Forget it, Swift."

Tom switched off his headset and turned to Bud. "How 'bout we make Mr. Dansitt reach for his air sickness bag?"

Bud gave a wicked smile and leaned forward into the controls. In a burst of energy the Kub suddenly leapt like an aerial jackrabbit, thrusting over the top of the Eaglet and resuming level course just ahead of it. Then, guided by the jet's rear-scanning radar, the Kub began bobbing and weaving right and left, up and down, whipping Dansitt's jet with wave after wave of backwash. The boys burst out laughing as the scope showed the Harrigan Eaglet tossing like a buoy in rough seas.

Tom switched his helmet back on. "Say there, Sidney, the beautiful blue sky may be looking a little green to you about now. Ready to set her down?"

"Ready," came back Dansitt, weakly. "Back to your airfield?"

"Not a chance. Just follow me on a new heading. The Fowler drainage control channel is ahead. It's got a nice flat concrete bottom, and it's dry this time of year. Once we get there, you set down first and get out. Then I'll circle back and land next to you."

"Affirmative," replied Dansitt.

"Sounds a little shaken up, doesn't he?" commented Bud, gleefully shaking hands with his pal.

Dansitt landed in the channel as directed. As the Kangaroo Kub flashed by overhead, Tom and Bud could see him below, a forlorn ant-sized figure next to his parked Eaglet. He had taxied toward the left side of the channel, and as the channel was more than one-hundred feet wide, there was sufficient room for Bud to land the Kub nearby.

Tom was the first to exit the jet, but Dansitt didn't wait. By the time Bud had begun to climb out, Dansitt had taken to his heels and was sprinting away from his plane.

"Stop!" Tom cried. "I want those pictures!"

Dansitt paid no attention to Tom. The young inventor darted after his enemy, and being

more fleet-footed than Dansitt, soon overtook him.

Dansitt, however, wheeled about suddenly and lashed out viciously with his fist. But Tom nimbly dodged the intended blow and knocked the other to the ground with a cross-body block.

"Where's the cartridge?" Tom gasped as he pinned down his adversary's arms.

Instead of answering, Dansitt gave a sudden upward lurch, forcing Tom to loosen his grip. But before his wiry opponent could slip completely from his grasp, Tom clamped Dansitt's arms in a steel-like vise of muscle. This time he straddled the other pilot. In doing so he felt a hard square object press against his thigh. Was it the digital cartridge holding the image files?

Bud trotted up next to Tom. "Tee him up, Tom—I think I can manage a field goal!"

"Give me the pictures!" Tom demanded fiercely.

"Okay," snarled Sidney Dansitt, sullen. "Let me up and you can have the cartridge."

Tom bounded to his feet and waited. Dansitt took a small object, the size and shape of a book of matches, from under his jacket and handed it over. Tom recognized it as a gigadensity image file memory cartridge.

Handing the cartridge to Bud, Tom said he wanted to look inside Dansitt's pockets. The disheveled young man leered at Tom.

"Why sure," he replied, showing a row of jagged teeth. "Whatever floats your boat, Tommy."

Tom felt inside his pockets and patted him down. No other cartridges were evident.

"Satisfied?" he snapped. "I haven't run out of hidin' places yet."

"Okay for now," Tom conceded. "But you had no business flying over Swift Enterprises," he added hotly.

The other sneered. "The air's free and I was just having a little fun. It's not like I dropped a bomb on that baby boat of yours. Anyway, you got the files, so what are you moaning about?"

"There's another matter I want to settle with you, Dansitt," Tom said. "Your little performance the other day, trying to fry me—what's up with that?"

Dansitt smirked and looked off into the distance, running a hand through his dark auburn hair. "Too much time on my hands, I guess, huh?"

Just then, startlingly, the concrete ravine echoed with the growl of jet engines! Tom and Bud whipped their heads around behind them.

"The Eaglet!" Bud cried. "He's got a crony inside!"

The distraction was just enough for Dansitt to take quick advantage. His eyes gleaming cold and cruel, he lunged at Tom and drove a smashing uppercut to his chin. The young inventor staggered backward, and for several seconds everything was lost in a foggy whirlpool. Tom's vision cleared in time to see Dansitt scramble into his jet, assisted by an unidentified man in the cockpit.

Bud, shirtless, was running full speed toward the Harrigan Eaglet. He had peeled off his shirt and bunched it under Tom's neck before bounding after Dansitt.

But Bud was too late. He could only rear back and watch helplessly as Dansitt's jet

roared away down the flood control channel and took to the air.

"But the important thing," said Bud when he had returned to Tom, "is that I still have that little cartridge in my pants pocket!"

Tom scrambled to his feet. "Still, I would have liked to have examined that camera—and the cockpit. It's just possible Sidney is mixed up in the Sea Snipers somehow."

Bud growled. "Now there's somebody I'd just love to feed to the sharks!"

Tom and Bud flew back to the plant, anxious to examine the image cartridge. But when they did so, they were in for a disappointment. The cartridge was blank!

"We were rooked," Tom groaned. "The guy's always one step ahead of us. I'll bet running away from his jet was carefully calculated to make us assume that what he had in his pocket was something valuable."

"Wait a sec, Tom," said Bud. "I may not be a phenomenal young scientist-inventor with deep-set blue eyes, but I do know that when computer files are erased, the data isn't really gone, not right away. It just gets written over as the disk is used. If he palmed an old used cartridge off on you, maybe there's still something we can get from it."

"Maybe," said Tom. He didn't want to hurt his friend's feelings, but he had already scanned the cartridge for such pre-overwritten files. Then a further idea came to him. This was a new kind of storage medium, not a conventional computer disk. Could there be hidden files of an entirely unexpected sort?

Tom gave Bud's shoulder a squeeze. "I'll try some new methods on this cartridge before I give up. And—stupid not to have thought of it—I'll have Harlan take fingerprints and look for other traces first."

"In that case," said Bud, "let's fuel our brains with a little grub."

When they reached Chow Winkler's kitchen, the cowpoke took one look at Tom and cried, "Brand my lariat, you sure ran into a tough critter. Who was he?"

"A pirate with a bolo punch."

"You jest don't know how to stay out o' trouble, do you?" The cook wagged his head. He prepared a hearty early supper for the boys, telling Tom a good square meal was the best way to restore one's fighting strength.

"But what do you do when it hurts to move your jaw?" Tom countered.

"You hand your plate over to me," Bud spoke up with a grin. "Three squares a day is hardly enough to keep me at fighting strength."

After supper Tom parted from Bud and paid a call on Harlan Ames, and then went to his hangar-annex laboratory. When he arrived, he noticed that he had received a video-email message from Rita Scheering.

A few clicks later, he was viewing the stored message. "Well, Tom, here I am again, and you can look me in the eye if you need to. I just thought you'd like to know that I've discovered a little more about that area of the Gulf that I mentioned the other day. I said there was nothing there, just some rocks. But that's not entirely true. According to the most detailed maritime atlas I could get my hands on, there's a real island there—if you call a few dozen acres of swamp grass and palm trees a real island. It's called Isla Espaniella—Spaniel Island. And I have a reporter's hunch it has something to do with

the Sea Snipers!"

CHAPTER 6 FAT MAN SUITS

TOM WASTED no time in contacting Rita Scheering. Intending to leave her an email message, he was surprised when she came on-screen.

"So what's the connection between this tiny island and the Snipers?" he asked, facing his web-camera.

"You mean, besides the obvious?" Rita blew a luxurious puff of white smoke. "It's the only piece of solid ground in that region that's bigger than a houseboat."

"It's uninhabited?"

"Let me read you the blurb from the atlas. 'Isla Espaniella, mistranslated into English as Spaniel Island. Recorded 1543, Spanish Royal Claim. Approximately 25 acres extent with tidal variance. No habitation or permanent structures as of 2001. Deep anchorage, southeast quadrant only. Class L approachable. Possession Cuba.' And no photo."

"All right," Tom agreed, "it sounds like it ought to be visited. But I'm sure we've had satellite photo coverage of it for decades, as it's owned by Cuba."

"No doubt," she nodded.. "But the relevant branches of the U.S. government don't share that data with their sister branches that easily, much less with young inventors, much much less with reporters."

"Maybe it isn't important," said Tom. "I'm within days of going on an underwater scouting mission in the Caribbean and the Gulf. I'll make Spaniel Island a port of call." Rita smiled at Tom challengingly. "Can I come too?"

"Nope," Tom replied.

"Didn't think so. But remember our agreement, young man."

Tom worked late into the evening, studying the tenth-second burst of static that had interrupted the plant's security radar. Carefully analyzed, the burst had peculiar phase and frequency characteristics that Tom found intriguing.

It was after eleven when Tom finally arrived home, physically exhausted but mentally racing. He found Sandy reading a book in the living room.

"Hi, Sis," he said. "Is that one of those bare-chested romance novels?"

Sandy set the book down on her lap. "Nonsense. And so what? Anyway, it's pretty dull. Have you found the pirates...or...?" Her voice trailed off sadly.

Tom lowered himself onto an ottoman. "A little progress, maybe—I hope. That reporter, Rita Scheering, contacted me again. Looks like Bud and I will be paying a visit to

Spaniel Island, a luxurious ocean resort—if you’re a seagull!"

"Do you know how those blackbeard types make everyone black out?"

Tom tried to grin, but found himself yawning instead. "I think so. You know what keeps you awake, San?"

She pondered the question. "Lima beans with anchovies?"

"You have a structure in your brain—all primates do, I think—that regulates your waking and sleeping patterns. Right now we're both yawning—" And they both did. "—because that little organ is telling our bodies to conserve oxygen and start shutting down. See?"

"Uh huh. So the Sea Snipers shoot deadly rays at the sleep organ?"

Tom chuckled. "That's kind of a simplification. It looks like the Snipers use pulsed electromagnetic waves in the ultralow frequency range to induce an entrained resonance effect in the body's natural electrical—"

Sandy interrupted with a vigorous shake of her head. "No, brother, this is not the time to try to impress me. Speak English, not Swiftish."

"Okay. One Hertz means one cycle, or beat, per second. AM radio broadcasts in kilohertz—'kilo' means 'one thousand.' With FM radio you start into the megahertz range—one million. Then you have radar frequencies, optical frequencies, X-rays, and so on."

"This I know."

"Well, scientists have been studying the effects of very low frequencies on living organisms for years now, mainly to determine if living near power lines is bad for health. What they've found is that some low frequencies can affect how the brain produces the neurochemicals that make it go. My guess is, the Snipers have discovered a frequency that induces a chemical 'flood' that overstimulates the part of the brain that controls consciousness."

Sandy frowned. "If it stimulates it, wouldn't we become sharper—not fall over?"

"Not necessarily. Sometimes externally-induced stimulation causes a reverse reaction, a kind of self-defense mode for the body. So when the brain gets signals that trick it into thinking it's too awake—it compensates by shutting down consciousness for a while."

"I see, Tom," said Sandy thoughtfully. "And what's the Swift solution?"

Tom leaned forward, his blue eyes aglow with excitement. "Even though I couldn't squeeze enough data out of the radarscope record to determine the precise frequency-mix the Snipers use, I think I'll be able to build a jamming device that will respond to, and 'scramble,' whatever they put out."

"So from now on, will people have to wear these things around their necks—like vacation tourists wear leis in Hawaii?"

Tom could help laughing at the image, and Sandy joined in. "No. I'm thinking more in terms of mounting the devices on ships—and maybe a few other places, like Swift Enterprises! But I won't really be satisfied until I have one of their actual 'pulsators' in my hands to take apart."

Sandy nodded. "One more question."

"What?"

"Who would you rather spend the rest of your life with, Bashalli or Daphne Mullenwasser? You have three seconds."

Tom jumped to his feet. "Whoop! My brain just shut down for the night!"

Sandy picked up her book. "Chicken!"

The next day was a busy one for Tom, and for Swift Enterprises. Even before Tom's encounter with Dansitt, Tom and his father had decided to launch the jetmarine in two days time. The midget craft would be hauled by enclosed van from Shopton to a wharf at Crescent Point, New Jersey, not far from the Spindrift Island tidal flats. The wharf had been leased by Swift Enterprises in secret some weeks before in an effort to avoid crowds, publicity—and evil-doers. Tom had to keep tabs on the loading of the sub.

And there were other irons in the fire. Tom had worked out a basic version of his anti-blackout distorter device, which needed to be installed within the jetmarine, its output antenna inserted in the small transmitter bay just beneath the upper hull. In addition, Tom continued to search Dansitt's captured memory cartridge for hidden information.

In mid-afternoon, Damon Swift knocked hesitantly on the door to Tom's private office. "It's okay, Dad," said Tom. "I'm taking a mental breather."

"Well, I'm here on a mission from your mother. She phoned and asked me to remind you about testing those emergency escape suits, the ones you told her about the other day."

"Mom doesn't show it, but she's always a little worried, isn't she?" Tom slid to his feet off his padded workstool. "As a matter of fact, going to our 'final fitting' is next on the agenda for Bud and I."

Bud had dubbed the gear the Fat Man suit. The body of it was egg-shaped, wide end down, about six feet tall, five across its rotund midsection. The upper third of the "egg" was transparent, offering the occupant a 360-degree view. It was composed of the same lightweight quartz-Tomasite meld as was used for the jetmarine's nose dome.

The entire front-facing half of the metal suit, including the dome, swung open like a book to allow easy access, closing into contoured slots that could be fully pressurized. Because of space restrictions on the jetmarine, the two suits would be stored in open configuration, side by side and ready for use, next to the decompression airlock. There would be scarcely enough room to swing them shut.

When in use underwater the suit was propelled by tiny aero-hydraulic pressure jets that gave it maneuverability similar to an astronaut's spacesuit. To control its vertical position without the need to dump ballast, Tom had devised a buoyancy adjuster, which he described to Bud as "sort of an electronic sponge."

But the main innovation involved in the Fat Man Suits was their workable arms and legs, hands and feet. The tubular arms, which could be retracted telescope-style, were given strength by small electric motors connected in series. The suit wearer operated the arms, and the lifelike fingers on the end, by inserting his hands and forearms into a pair of sleeve-and-glove mechanisms hanging inside the capsule. Every movement of the occupant's hands and arms would be mimicked by their mechanical counterparts.

The suits legs, extending down beneath, worked on a simpler principle. The suit wearer

stepped down into them, his feet extending down to the halfway point of the hollow legs. As the wearer walked, the metal legs would replicate his actions.

"Those suits of yours are not only like one-man microsubs, they're almost human," commented Mr. Swift as he ridewalked with Tom to the test site. "How do you keep them from falling over?"

Tom replied, "Micro-sized supergyros, based on the Flying Lab's stabilizers."

"Impressive work," Mr. Swift pronounced with an affectionate snort. "But it's one thing to test an invention in the abstract and another to foresee actual experience."

"Excuse me, folks," said a deep voice from behind them. Chow had caught up to them on the ridewalk. "I jest come to tell you my chuck wagon's over by that test site, itchin' to feed you all." The cook grinned. "If you won't come an' get your victuals, well, brand my charcoal stove, I'm forced to fetch it to you."

As Tom and his father joined Bud Barclay at the outdoor test tank, Chow wheeled over a cart with several covered metal dishes kept warm over a flame and began to serve from them.

"I'd hate to starve, of course," Bud said with a grin, "but I'd rather do that than be—er, poisoned. What's that funny colored stuff in the bowl, Six-Gun Slim?"

"Soup, an' it's not—"

"Purple soup!" Tom's exclamation was softened by a wink. "What did you put in it, iodine?"

Chow feigned looking hurt. Then he appealed to Mr. Swift. "You know what it is, sir?"

"I'm afraid I don't," the older inventor replied.

"Well brand my ole bean patch!" the cook said in amazement. "You jest taste that special o' mine. It's snapping turtle right from the Rio Grande, stewed up with red cabbage."

"What a fate for a poor turtle," Tom groaned.

"No wonder it's snapping," added Bud.

Chow made no reply to this, and after a dark look from the Texan, Tom put his spoon into the concoction and tasted it. The cook grinned in relief as Tom conceded that it was pretty good after all.

The afternoon snack completed, the Fat Man suits were carted out and positioned next to the test tank. They had already been thoroughly tested, without occupants, in the high-pressure tank. This final test in the open-air tank was only to make whatever slight adjustments remained.

"Boys, I just remembered that I have to return a call to Admiral Krevitt before he leaves for the day," said Mr. Swift. "Good luck with your 'fitting'."

"I'd wait for you, but we'll have to hurry things along so we can get started on our pirate hunt," Tom responded.

Beside the test tank stood what looked like two prehistoric dinosaur eggs, gyrostabilized to stand on their thick legs without toppling. Tom swung open one of the suits, Bud the other.

"Your attention, folks!" Bud mimicked a circus barker. "Watch while we transform these Humpty Dumpties into men!"

They backed into the suits with a bowing-like motion, stepping down into the leg-hollows, and after quickly checking the mechanical devices, slammed the hatches shut, which latched and pressurized automatically. A few moments later the boys' audience beheld two grotesque creatures gleaming in the late afternoon sun, their long fingers and flat toes giving them an uncanny appearance.

When the Fat Men began to walk, the onlookers grinned at their peculiar waddling gait. Reaching the tank, which was filled with salt water, Tom and Bud were hoisted in by pulleys. They bobbed around like corks for several seconds, playfully splashing each other, and then began to descend.

The watchers, aware of Tom's recent frightful experience, waited intently as Sid Baker flicked on the in-tank lights, which were color-modulated for better visibility in water. Through the thick viewpane the boys could be seen slowly walking around on the bottom, apparently untroubled.

"Where's the oxygen hose?" asked one of the technicians.

"Everything's inside the Fat Man," Baker replied. "It's not dependent on outside help. Lithium hydroxide is taking care of what the boys are exhaling, though you'll see air bubbles come out of the vents. And you've got about three hours' worth of oxygen crammed into a little tank about the size of a picnic thermos bottle, thanks to one of the Swifts' inventions."

"Man, I do love working here!" remarked the technician.

After forty minutes the period for the test was up, and the two Fat Men bobbed to the surface and were helped from the water. Again the boys' audience smiled as Tom and Bud awkwardly emerged from the suits. It took them several minutes to do so, their muscles somewhat cramped from unfamiliar use, but Tom had asked that they be given no assistance unless it was absolutely necessary.

"What's it like, Tom?" came a voice from the crowd.

"Like walking around in a dream," he replied, hair matted with perspiration from his efforts. "The kind where you can't move as fast as you want to, like you're walking through molasses. But still, these are escape suits, not luxury liners."

"I'd say your Fat Men are ready for the big time," Bud joked. "All we need is—Tom?" Bud interrupted himself because his pal had suddenly shifted his gaze off to one side, an intent look on his face. Tom's neck muscles twitched slightly, and Bud realized the young inventor was engaged in a silent conversation over his muscle-reading televoc communicator.

After a moment Tom gave a slight nod and turned to Bud. "That was Dad. He wants me to clean up and meet him in the Teleconference Room at 5:30 sharp."

"What is it?"

"I don't know," Tom replied. "Maybe one of our suppliers needs some details from me."

"Well, since you don't need me right now, I think I'll put in some time in the flight simulators."

Tom watched as Bud departed on the ridewalk, feeling somewhat guilt-ridden. He hadn't lied, but he had been discreet. Mr. Swift had specifically asked Tom not to bring Bud, or

anyone else, along with him to the Teleconference Room. They were about to engage in a highly confidential meeting with not only Admiral Krevitt, but with Dr. Yuri Nemastov, a top-level representative of the government of Russia!

CHAPTER 7 CONFOUNDED CARJACKERS

AT THE STROKE of five, Tom and Damon Swift, pressed and dressed, were seated side by side at a large wooden table in a darkened circular room. The table was round and ten feet in diameter, and the far side of the table butted up against the wall that faced them, which matched the table's curvature.

The far wall flickered and became illuminated in two places. The glowing shadows suddenly condensed into the images of two men, detailed and almost three-dimensional. "Hello Swift, Tom." It was the image of Admiral Krevitt who spoke. "I have the honor to present to you Dr. Yuri Nemastov, Chief Minister of Applied Sciences and Technology of the Russian Federation, and Special Consultative Officer to His Excellency the President."

Dr. Nemastov was a white-haired, heavyset man with eyes that twinkled behind thick spectacles. He nodded, but with eyebrows raised comically. "I would offer my hand," he said, "but even this advanced tele-cinematic system of yours cannot yet accommodate flesh and bone." He spoke flawless English, with a cultured intonation.

"We met three years ago, Dr. Nemastov, in St. Petersburg," noted Mr. Swift. "You were gracious enough to address the convention I was attending, and we spoke afterwards." "Indeed yes, I do remember," Nemastov replied. "And now we meet again. Or rather, now we sit at three separate spots upon this earth and pretend to be together in one room."

After a pause, Krevitt spoke up. "When Dr. Nemastov approached ONDAR with his problem, representing his government, I knew this was the sort of thing you Swifts could help us with."

"More than likely," said Mr. Swift smoothly. "A technological problem?"

"Oh, in a way, in a way," replied Nemastov. He then added what seemed to be a non sequitur. "I understand young Tom is planning a voyage to look beneath the waters of the Caribbean and the Gulf of Mexico."

"That's right, sir," Tom responded, puzzled.

"Then perhaps you will be the one to assist us. But let me tell you a story."

Nemastov took a deep breath and settled back in his chair. "Damon Swift, my friend, do

you remember the incidents of October of 1962?"

Mr. Swift gave a brisk nod. "I surely do. I was in grade school. I went out onto the playground and looked up at the clouds, wondering what it would be like to never see them again." He half-turned to Tom. "The Cuban missile crisis."

"Yes, so it is called," agreed Dr. Nemastov. "Your country and the country I was born in, the Soviet Union, now deceased, almost came to nuclear blows."

Tom began to see the connection. "In the Caribbean and the Gulf!"

"Indeed," said Nemastov, "where you are to be going. A terrible moment—and I tell you, young man, not all has been revealed about that year, that month. It has now become known in my circles that a Soviet submarine, bearing missiles and powered by an atomic reactor, was diverted from the North Atlantic to a posting in the Caribbean Sea. This was the Vostok. During passage through the Yucatan Channel, near to Cuba, all communication was lost—it fell silent. An extensive but discreet search availed nothing. And so the matter stood."

"Then it was presumed lost at sea, I take it?" asked Mr. Swift.

"That is correct. Now we move forward in time thirty years. My poor Soviet Union has expired. A man in Moscow, a black-market czar, dies and leaves his widow a great deal of money. Her name is Aia Ozkhodskaya. She decides to travel the world and indulge her fancies, one of which is the search for the lost lands of myth, such as Atlantis. Did you know, my friends, that lost Atlantis has been sought everywhere in the world by the cultists and adventurers? Well, she read a book and came to think Atlantis was on the bottom of the Gulf of Mexico. And so she purchased a great deal of specialized equipment, photographic and sound-based, as well as a large yacht; and she began to explore. She did not find ruined temples. Instead, something ominous and unexpected."

"The Vostok!" Tom interjected.

"Yes, young Swift, our lost submarine. She did not know what it was, nor its value to the government of Russia, which would like to retrieve its radioactive cargoes—and to finally lay to rest its mystery. She thought she was seeing, on her sonar-photograms, part of a building buried beneath the sands. We became aware of these images when she attempted to form a consortium to descend to the ocean floor and explore the area more thoroughly. We knew very well what she had found."

"Where is this Madame Ozkhodskaya now?" inquired Tom. He could not keep a note of suspicion from his voice.

Dr. Nemastov responded with a smile. "I understand what prompts your question, young man. She was never approached at all by the government or its agents. Her proposals attracted no 'takers,' and I believe she now resides comfortably in Madrid, and is looking for the Ark of Noah!"

Now Admiral Krevitt took over the conversation. "Swift, Tom, the Russians have agreements with the U.S. involving the control and disposal of their nuclear materials. We want to help them get down to their lost sub and determine what would be involved in a salvage operation."

"And you're asking us to run the job?" asked Mr. Swift.

"We ask you to become underwater ghost hunters, to lay the ghosts of past follies," Dr. Nemastov said.

Krevitt continued, "You have your fancy new deep-immersion submarine, and I understand you have some high-pressure diving gear as well—am I right?"

Tom replied for his father. "That's right, Admiral."

"We're asking you to make a survey of the area during your shakedown cruise. We can provide the general location, from the woman's records." The Admiral held up a chart with a section outlined in color. "If you see something, get out and take a look around, that's all. Naturally you'll test for radiation leakage and so forth."

"Naturally," said Tom. He looked at his father. "Dad, there's no reason why we ought not do it, none that I can think of."

"Very well," said Mr. Swift to Admiral Krevitt. "Transmit to us all the information and authorizations we'll need."

After a round of small talk and goodbyes, the teleconference screens blanked out.

Tom turned to his father. "Dad, the area marked on Admiral Krevitt's chart is right in the middle of Rita Scheering's mystery area!"

"Which may mean—may mean—there's a connection between the Sea Snipers and the lost submarine," Mr. Swift said thoughtfully. "That would explain their concern that by sheer happenstance someone might have used some sort of imaging device while passing over the Vostok. The thefts of valuables may just be a ruse! The true purpose is to recover the image records before the owner understands what they are."

"There has to be a connection," Tom urged

"Yes. And that indicates yet one further link—to Sidney Dansitt! All very puzzling."

With Chow providing a late dinner, bereft of anything too Texas-exotic, Tom worked into the evening in his lab, adjusting the itinerary of the voyage of the jetmarine in light of its new goals. He then moved on to his attempt to "crack" the seemingly blank image cartridge Dansitt had handed over.

An unexpected insight gave Tom a new approach to pursue, and suddenly he began to make real progress. Almost immediately he found signs that the cartridge, though superficially blank, was inscribed with traces of latent data.

The cartridge was used before, then erased over, he thought excitedly. Dansitt probably stuck it in with a bunch of blank cartridges, not remembering it wasn't totally clean.

In minutes he had extracted what appeared to be several fragments of text, all severely degraded and incomplete.

"This is as tough as trying to break that space code!" he murmured to himself, thinking of the symbols on the missile from space.

Finally he had isolated one fairly lengthy, continuous chunk of text, which appeared on his monitor as:

FO S B C R A T C A P T E F R O M R O C N V O T O E W J E R H A F B Y O U M E N R E D Y
A T R I G G E S C H L C O T E S R O S E L L F U H E R I N S

A more powerful enhancement program was applied to the untranslated code segments within the chunk. The result made Tom's jaw drop in anger and astonishment.

FOR SUB CRAFT CAPTURE FROM ROAD CONVOY TO NEW JERSEY WHARF
BY OUR MEN READY AT TRIGGER YES CHILCOTE YES ROSELLO FURTHER
INS

"They know all about our plans!" exclaimed Tom in alarm. The decision had been finalized only days before! "And they aim to carjack the jetmarine before it even hits the water!"

Tom immediately emailed the results to Harlan Ames at his home, then phoned the security chief.

"Chilcote and Rossello sound like names," Ames commented. "Ring any bells?"

"No," Tom replied. "They could be place names, though, not people."

"That's true," Ames agreed. "Yes Rosello could signify approval from a certain location, perhaps their headquarters. But the main thing now is to call off the overland sub transfer."

Tom thought for a moment, then shook his head. A sly grin broke out on his face.

"Harlan, I'm not so sure!"

In the ensuing dark hours before dawn there was feverish activity at the Swift plant. The jetmarine was raised and carefully lowered by cranes onto a special wheeled cradle so that it could be moved more easily, and the crane assemblages themselves were taken apart and packed away, to be used later when the sub was placed in the water. At the same time, Tom was holding a council of war in his private office. The young inventor sat at his desk, with his father, Harlan Ames, his chief engineers, several trusted workmen, and Bud Barclay gathered around him.

"This has turned into a dangerous project," Tom began. "The Sea Snipers gang—which probably means Dansitt and his spies—intend to wreck our plans to launch the jetmarine. I have no doubt they know in general what we are doing."

"Do you really think there's that much danger?" Bud asked skeptically.

"More than you think."

Ames nodded in silent agreement.

"They know we're ready to move our atomic sub," Tom went on, "but there's one little item they don't know."

"What's that?" Bud asked eagerly.

Tom smiled. "How we're going to move it," he responded. "That's where I hope to fool them."

Bud scratched his head and frowned. "We're going to truck it to Stillman's Wharf, aren't we?"

"That's what everybody thinks," Tom said. "including everybody here at the plant. And our enemies think so too."

"You mean you're not going to ship it by truck?" Bud looked incredulous, then he added, "I suppose we're going to put wings on it and fly it down to the coast!"

Arv Hanson smiled. "Barclay, you're a budding genius."

Bud grinned. "Yeah, I know what you mean. All sap." Then he turned to Tom again.

"Okay, just how are you planning to get the thing to Stillman's?"

"It's simple," Tom said. "I'm going to load her into the Sky Queen."

The murmur that arose from the men indicated they did not believe that Tom's solar-energized skycraft, huge as it was, would be able lift the additional load of submarine and the cranes which would lower it to dry dock.

"I know what you guys are thinking," he said, "but Dad and I, and Wesley Beale, worked it out."

As Tom rose and moved toward the door, the others followed him.

"I have a trick up my sleeve," the young inventor said. "I'm going to try it before we roll the sub into the hangar-hold of the Queen later this morning."

As the others listened, their eyes grew wide and grins spread over their faces. Tom explained that he had had a dummy framework hastily constructed. Covered with canvas, it would look very much like the jetmarine.

"I'm going to mount that on the trailer and send her out when the sun comes up," Tom said. "If the pirate gang is as watchful as I think they are, they'll be lying in ambush for it somewhere along the route. Meanwhile, the Flying Lab will be on her way to the launch site with the real McCoy."

Tom led the way to the plant's huge carpentry shop, where the dummy jetmarine lay ready for its journey, quickly put together by the overnight shift.

"There's only one thing bothering me," Bud said. "This will be a dangerous run. Who's going to drive the trailer?"

"Mr. Gautchah," Tom said. "You remember him."

"Sure. Mr. Gautchah. I don't get it, genius boy," Bud remarked. He theatrically grabbed his head in his hands. "Come, nurse, put me a strait jacket and take me to the booby hatch!"

Tom grinned at his pal. "Welcome to the world of millennial wonders, Budworth! Now I'm catching some shut-eye—we roll in three hours."

At the appointed time, the sky a pale yellow, the reinforced main gate of Swift Enterprises slid open and a long flatbed trailer, its bulky load covered by a tarpaulin, pulled out and turned right, heading in the direction of the main highway. Back in Harlan Ames' office, a small, tense crowd was gathered in front of the security chief's oversize wall-mounted monitor screen.

Ames switched the view from the feed transmitted by an Enterprises security camera, which gave a distant view of the departing truck, to a scene showing the road itself from the viewpoint of the cab of the truck.

"Those new self-contained minicams work just fine," Ames commented.

"What will we do now?" Bud asked after a dozen minutes without event.

"Harlan has already phoned the police to follow the truck at a good distance," Tom said. "I've decided to wait and see what happens."

"I expect action fairly soon," Ames commented. "They're not likely to try anything on Route 11, certainly not on Highway 71. So I'm guessing somewhere along Lakeview Road, probably at a spot where visibility is restricted by a curve or a hill."

"Plenty of those," Arv Hanson noted.

The words were hardly off his tongue when Tom received a signal on Ames' radio link, which he had adjusted for general audibility.

"T for tomato, T for tomato," came the call.

"Okay," Tom answered. "What's going on?"

"Something fishy," was the reply. "I'm ten miles out. A car has just pulled up ahead of the trailer and another in back of it. They're closing in tight now. Yep, these are our guys—they're trying to force the trailer to the side of the road!"

"We can see 'em on the screen," Tom said. "Guide her to the side of the road and park. Tell me what's happening."

"Police are converging," whispered Harlan Ames to Tom, not wanting to interrupt the report from the truck.

The radio voice grew louder with excitement. "Tom, men have jumped out of each car. Drawing guns! They're approaching the cab..."

Ames switched to the feed from a minicam within the cab. Grim-faced men approached the driver's door, guns drawn, and yanked the door open. The leader began to bark out an order—and his face went slack with surprise.

Ames immediately switched to a different angle, showing the cab interior. The figure in the driver's seat, hands still tight on the wheel, swiveled his head toward the open door and dropped open his gaping mouth.

"Gotcha!" came a recorded voice, followed by idiotic laughter. The driver, "Mr. Gautchah," was a lifelike plastic dummy!

"I'm so glad I kept Mr. Gautchah after the Halloween party," chortled Arv Hanson.

His laughter found a subdued echo in the voice from the radio speaker. "Are they mad! They're cussin' you from here to the Pacific!"

Tom chuckled. "I'll bet!"

"They seem confused as to how the truck was run. A couple of them are hurrying away from it as if they'd seen a ghost. They don't guess I'm here inside the dummy jetmarine with my monitors and controls."

"Jeffers did a fine job," noted Mr. Swift to Tom, naming the hidden driver of the flatbed.

"He put himself in quite a bit of danger."

"Here come the police," Jeffers said. "They've hemmed in the two cars—I guess it's all over!"

"Great work, Bob," Tom said. "Get back here as quickly as you can with the trailer—and Mr. Gautchah. Harlan Ames will get the police report later." Then he turned to the others around him.

"It's time for us to go," he said. "while the enemy is distracted. We've cleared the way. Everybody ready?"

After Tom spoke briefly to the state police and verified that the four would-be carjackers were in custody, the boys hurried to the underground hangar. Tom beamed his electronic key on the hidden lock, and the door swung open silently.

"Hop to it, men," Tom said, beckoning his ground crew.

Ten minutes later the gleaming Sky Queen rose on the huge elevator from her

underground nesting place to ground level, Tom's atomic sub stowed safely in the hangar in the aft section of the great aircraft.

"It's easy when you know how," Bud said admiringly.

Tom and Bud mounted the central boarding ladder which extended down from the belly of the giant craft, well forward of its banks of jet lifters.

"Where's Chow?" Tom remarked as he made his way to the flight deck.

"You don't have to ask where I am," came a foghorn voice from inside the big ship.

"Your ole chuck-wagon cook's been waitin' an hour."

When Tom was in the pilot's seat, Bud next to him in the copilot's position, he switched on the ship intercom and talked to crewmen in the rear of the Flying Lab, verifying that the jetmarine was secure in its special cradle.

The Enterprises control tower radioed that the Sky Queen was cleared for takeoff. Tom cast a glance at Jane Lenning at the flight engineer's station behind Bud.

"Take 'er up, Chief!" she said jauntily.

Tom throttled-in the jet lifters, and the stratoship rose like a majestic fin-tailed elevator into the early morning sky. The adventure had begun!

CHAPTER 8 SUB IN THE SKY!

"You sure were right, Tom," Bud said. "This ship handles the jetmarine like she was a toy."

Tom smiled modestly but did not reply. He gestured toward the cockpit's broad, downward-facing viewport. "Look down there, flyboy. What do you see?"

"You mean besides the usual? Nothing."

"Exactly," said Tom. "And yet it hasn't been two months since the Sky Queen was stopping traffic for miles around. It's amazing how quickly people can adapt to things they used to think were impossible!"

After they had gained ten thousand feet of altitude, Tom applied forward thrust and the plane headed for its destination. Within half an hour the dim grayness of the Atlantic came into view.

"We're almost there," Bud chuckled, "and believe me, the sooner we get this precious baby down in dry dock, the better."

Tom gave Bud an apologetic look. "Actually, pal, we've got more than an hour of flying left before we set down."

Bud's eyebrows leapt upward in surprise. "Huh? What do you mean?"

"I meant to tell you right after we took off. Dad and I decided to launch the jetmarine from our Key West facility, where Graham Kaye's videophone setup is located. No one else was to know until after the Queen was underway."

"I guess it makes sense," Bud acknowledged. "You're really keeping Dansitt and his goons in the dark!"

"Dad and I hate to mislead the hundreds of Swift employees who are dependable," Tom said, "but it's obvious that information about our plans is getting out somehow."

Tom's further thoughts were interrupted by a voice in his flight headset. "Swift control to Sky Queen!"

"This is Sky Queen, Swift control."

"Tom, an Admiral Krevitt is asking to be patched through to you."

"Go ahead," said Tom.

The Admiral came on line, relayed from ONDAR headquarters in Washington DC, which the Sky Queen was now approaching in its southward flight. "Tom, we've come up with some significant information on this person Chilcote. Dr. Herman Chilcote was a British national who worked on a joint British-American defense project in the early 80's. After three years, he plain disappeared without a trace one day! Not a sign of him since."

"What was the nature of the project?" Tom asked.

"Do you recall my mentioning that the government had once worked on blackout technology? Well, this project was what I had in mind. Stimulation of the brain centers from a distance by phased electromagnetic pulses! But they could never make it work, and in fact the people involved came to believe that Chilcote had falsified some of his reported findings. He was on the verge of dismissal when he disappeared."

"I see," said Tom. "It sounds like he wasn't entirely bogus after all."

"Apparently so," agreed Krevitt. "Now as to the other reference you gave us, Rosello, we have quite a number of people by that name in our files—and of course several whole countries are full of 'em! But nothing stands out in the present connection."

Tom thanked the Admiral and broke contact. The young inventor felt he was slightly ahead of the game—but not by much.

"The answer's down on the bottom of the sea, I guess," said Bud. "But we'll find it, Tom!"

Occupied with his thoughts, the time seemed to pass quickly for Tom. He was almost startled when Bud noted that the Flying Lab had crossed the long string of the Florida Keys and was ready to begin its approach to Key West. Five minutes later the crew were debarking onto the tarmac of the small private airfield maintained by Swift Enterprises at their Key West facility, the Swift Oceanic and Nautical Research Center. Even making a delicate vertical touchdown, the Sky Queen barely fit into the minute airfield.

After greeting Graham Kaye and the Director of SONRC, Dr. Eileen Mattengar, Tom turned to the task of the unloading and emplacement of the jetmarine.

"Shall we unload immediately, Tom?" one of the men asked.

"The quicker the better. We'll get the jetmarine into the dry dock and slap on that

camouflage before people are awake."

The young inventor watched with satisfaction as the special cranes, quickly reassembled, deftly slid the atomic submarine from the hangar of the plane, swung it across the sand that bordered the airfield, and cradled the jetmarine in the dry dock. At that moment the camouflage crew sprang into action, unrolling prepared tarps from the Flying Lab. Minutes later Bud cried admiringly:

"Jetz! That covering looks just like a piece of seashore."

Tom agreed. "Any roving pirate will miss it."

After dismissing the unneeded Swift employees, who were to pilot the Sky Queen back to Shopton, Tom spent the balance of the day personally checking parts and supplies on his submarine. A quonset hut was set up next to the dry dock for the protected storage of parts, and to serve as temporary quarters. As usual, Chow was on hand to provide a tasty lunch, sumptuous supper, and tart advice. A call to Harlan Ames revealed that the incarcerated carjackers had volunteered no information, but were demanding legal representation.

In the evening Tom reviewed with Bud the intricate handling of the submarine. Standing before the myriad-lighted control panel, Tom said finally:

"Enough for now, pal, or we'll see blinking lights in our dreams. Come on topside. Let's hit the sack."

"Not me," Bud protested. "I'm sleeping right here—baby sitter for your brain child." He stroked the periscope handle and grinned.

"Okay, if you want to," Tom replied. "I'm just as bad—I'm sleeping in the shack twenty feet away!"

"Adios!"

The SONRC compound was afforded both radar and sonar protection that encompassed the inlet as well, and Tom felt that he had set up reasonable security. Two roving guards, equipped with televoc pins tuned to Tom's receiver, were instructed to awaken him if they saw anything suspicious.

Tom kicked off his shoes and sat on the edge of his bunk. Except for the steady breathing of the other remaining employees from Shopton, it was just as quiet inside as out. The stars were a glowing milky tapestry, and the sea murmured not far away from the inlet where the dry dock had been set up. So far, things have gone well, Tom thought. My enemies have been shaken off, or at least they've lost the trail. He stretched out on the bunk. Maybe we'll still find Hank Sterling alive. Maybe.

In a short time Tom was asleep, thoroughly exhausted.

It was after midnight when Tom jolted upright on his bunk. An alarm was blaring in the distance! He shook his head, trying to clear it.

His televoc beeped and a frantic voice came on. "Tom Swift!" shouted the startled voice of one of the patrolling guards. "I see something—something's out there!"

"Where?" Tom demanded.

"In the water, the ocean—it's moving this—"

The warning was cut short by an earth-shaking explosion as a crimson flash illuminated

the shore. The ground under the quonset hut shook as if it had been caught up in the fierce anger of an earthquake, and the canvas floor was lifted like the back of a spitting cat. Tom and his friends were knocked from their bunks by the concussion. Had the jetmarine exploded?

CHAPTER 9

A TOE IN THE WATER

The quonset hut was full of confused exclamations. "What happened? Anybody hurt?" the men cried.

"I'm OK, OK here!" came a chorus of replies, but none of them revealed the cause of the explosion.

"Follow me!" Tom ordered, grabbing a powerful flashlamp. "But keep low! The jetmarine! Oh, I hope Bud—"

Tom frantically scrambled out of the hut ahead of the others and aimed his flashlamp toward the dry dock. A dark curving shape was illuminated. The sub was unharmed!

"Good night, what was—?"

"Get down, Bud!" cried Tom, seeing Bud pushing through the flap in the camouflage which covered the topside hatchway of the jetmarine. Bud ducked, rolled, took a leap, and in an instant was crouched at Tom's side.

"Tom, is everyone all right?" It was Dr. Mattengar on the televoc, calling from the lab compound a quarter-mile distant. "Some fast-moving object penetrated our radar-sonar perimeter and exploded inside the inlet. It must have been a torpedo!"

So that was the alarm, Tom thought. He reassured Dr. Mattengar, then attempted to contact the two roving guards, remembering that one had been cut off in mid-sentence. "We're both fine," was the reply. "I'm the one who saw it out in the water—Eduardo. Just a thick white streak of foam heading toward the shore."

As the minutes passed and no further intrusions occurred, Tom decided to risk illuminating the area so as to survey the damage. Arv Hanson clicked on a floodlight atop a nearby pole. The yellow glow spread over a wide area. As the group fanned out to investigate further, Tom and Bud peered beneath the camouflage.

"Is she all right?" Hanson called out.

Tom waved back at him and shouted, "Looks fine!"

"But what caused the explosion, Tom?" Bud asked in a quiet voice.

"We don't know yet," Tom said grimly. "But it was definitely some kind of attack!"

The other searchers presently informed Tom that they had found the site of the blast. It

was down the shore of the inlet a short distance. One of the men trotted back to the hut and led the way along the inlet, toward the sea. Soon they came to the mouth of a narrow reed-filled creek. Tom could see that black mud had been showered all over the banks.

"There's the spot!" Tom declared, spotting a gaping hole in the creek bank. Scattered about were innumerable shrapnel-like pieces of metal, some bearing traces of letters and numbers.

"A torpedo, all right!" exclaimed Bud.

Tom clenched his fists and looked out toward the dark ocean. "It seems the enemy doesn't just want the sub," he said. "They want it in pieces!"

Arvid Hanson and the Swift Enterprises crew urged the two boys to get some sleep, but this proved to be impossible to do. Both Tom and Bud tossed restlessly until dawn. Finally Tom arose and hurried out to the jetmarine, near to which Bud Barclay was pacing up and down.

"Bud," he said, joining his friend, "I have an idea. Let's assume that it was the pirate sub that fired the torpedo at us, the same sub they use to attack the ships. She's probably of conventional design, not an atomic; the use of contraband atomic materials would expose the Snipers to too much risk of being traced. If they have a base on or around Spaniel Island, the jetmarine'd beat her with ease and be there waiting for her!"

"Terrific idea!" Bud agreed with enthusiasm. "We might even find Hank Sterling there! When do we leave?"

"Within the hour," Tom replied. "By the way, I've plotted a course that will take us right over the Vostok's estimated position. If we make good time, as I expect, it won't hurt to pause for a couple hours to carry out that part of our mission. And it might be an important thing to do."

"Why?" Bud asked.

"Because I'm sure these things are all tied together somehow—the sunken sub and the blackout attackers. It might be wise to pick up some clues before we confront the pirates."

Making miracles with a portable propane cookstove, Chow Winkler had prepared breakfast for them. As they were eating, the cook answered the ringing telephone. "It's fer you, Tom," he said. "I'll keep the flapjacks warm."

The caller proved to be Harlan Ames, who had received Tom's preliminary report on the torpedo explosion and was calling for additional details.

"It throws me that they know our every move," Tom said hotly. "The only way they could know we were launching from Key West would be from one of the small group of trusted Swift employees that flew here with us, or the SONRC people, and I just can't accept that."

"I know how you feel," remarked Ames sympathetically. "On our end here, there's nothing new. As you know, Sidney Dansitt and his jet have completely flown the coop."

"How about Chilcote and Rosello?"

"We still don't know who or what 'Rosello' might be. All I have on Chilcote is a very old report that he was thought to be purchasing electronic equipment in Trinidad. Not

much—but it does suggest that he's been working in your general part of the world." Before boarding the jetmarine, Tom made one final call from a computer terminal in the SONRC building. Despite the earliness of the hour, he wanted to see if Rita Scheering had any new information for him.

"I wish I did, hon," she said over their webcam connection, clad in a robe. "So where are you now? That's not your lab in the background."

"I'm where we're launching the new sub," Tom replied. "We'll be taking a look at your mystery area."

"What if they hit you with that blackout machine of theirs?"

"I don't think their method will work under water," said Tom. "And when we surface, I'll be protected by a new invention of mine, a distorter that should jam their pulsator." She wished Tom luck.

Half an hour later Tom and Bud were ready to commence their voyage and hastened to the submarine. To their surprise, Chow had arranged for a christening. He stood with a large bottle of ginger ale in his hand, a broad grin on his broad face.

"This here li'l ole sub's jest got to have a name," he announced. "I mean, 'SE117JM' is not the sort o' thing a mother'd call her baby. How's the Seaweed Stallion sound to you, Tom?"

Not wanting to offend Chow, Tom hesitated. Seeing his dilemma, Wesley Beale spoke up.

"Say, Tom, if you're taking suggestions, how about calling her the Atomic Squid?"

This set off a good-humored competition. Several other names even less likely were tossed around. Finally Tom held up his hands. "Folks, I think I'll just go with the name I had in mind all along. I want to call her the Nemo, after the captain of the submarine Nautilus in the Jules Verne novel."

The announcement was met with applause, and Chow handed the bottle to Tom. But the young inventor, grinning, returned it and said:

"You do the christening, Chow."

Proudly the loyal cook stood by as Tom and Bud shook hands with Dr. Mattengar, Graham Kaye, several members of the SONRC staff, and Tom's own friends from Shopton. Then, with a final wave, Tom and Bud climbed aboard, squeezing their way past the Fat Man suits to the transparent-walled control cabin at the prow. The camouflage cover having already been removed, the lines were cast aside. Tom's atomic submarine was ready to start her maiden voyage!

"I christen thee the Nemo!" Chow murmured in respectful awe, cracking the bottle on the stern.

Inside the dome of the tiny control cockpit, now completely submerged, Bud shot Tom a thumbs-up, and Tom eased forward on the thrust-control lever. The jetmarine instantly betrayed her great power. The boys had to brace themselves against the acceleration as the craft slid out of the dry dock and made a fast, easy getaway down the inlet.

Faces flushed with the excitement of the moment, their eyes met. "She really is an underwater jet, aqua boy—I mean, skipper!" cheered Bud. "She just couldn't wait to get

herself wet from stem to stern!"

"Hey, this isn't getting wet," Tom laughed. "This is just a toe in the water. Wait'll we push this baby to the limit!"

A mile out in the ocean on a south by south-eastern heading, Tom, unable to wait any longer, said: "Bud, shall we take her down for the first deep water run?"

"I'd hate to try stopping you!" Bud chortled, and made his way forward to a small flip-down seat near the very front of the nose-dome. Here the jetmarine tapered, and the sturdy six-footer had to crouch down to avoid bumping his head. "Go ahead, Tom—she's all yours. I'm just here to get a fish-eye view!"

As Tom set the automatic controls for the crucial descent, which would be guided principally by sonar, Bud took in the beauty of the shallow waters around him, illuminated by the rising sun. "This is super, Tom!" Bud cried out. "With that bright sun on the surface, you can see way ahead!"

For minutes Bud gazed around in rapt fascination, watching schools of mackerel, blues, and other coastal fish scoot through the yellow-green water as the Nemo shot by them, its hydraulic jet making only a soft whoosh thanks to the noise-abating design of the thrust chambers.

Tom turned from the instrument panel and spoke over his shoulder. "Ready now—I'm going to run her at high speed, then follow the grade of the continental shelf down to deep water."

The young inventor activated the automatic navigational program and grabbed the support railing. The atomic craft surged ahead. Faster and faster and with no vibration the Nemo picked up momentum.

The speed indicator went higher and higher, and the sands below and scalloped waves above became blurs. Finally Bud exclaimed, "From what you told me, Tom, this is almost twice as fast as anyone has traveled underwater before!"

Tom's face creased into a pleased grin. "We could outrace any old fish in the sea—and maybe a torpedo to boot!"

So quickly were they traveling that they were already leaving behind the North American continental shelf. The first sign of their automated descent was a gradual change in the color of the overhead sun-glow from turquoise to a deeper blue. Then Bud pointed out that the deck had assumed a fairly noticeable downward tilt.

"Yep," replied Tom, "here's where the shelf takes a sudden drop, and we're running parallel to the slope. We'll level off again in a minute."

Down and down went the Nemo, into the depths of the mid-Atlantic. A look of strained anticipation appeared on the two adventurers' faces as they plunged into a trackless darkness that had never seen the light of day, not in five billion years.

Finally, as predicted, the jetmarine leveled off. After a moment Tom applied the thrust-reversers, and slowly brought the craft to a halt, powering down the engines. The mild but continuous background sound of the hydraulic jet was replaced by a solemn silence.

"Tom," murmured Bud in a near whisper, "where are we?"

The young inventor consulted his bank of instruments. "We're floating a few yards

above the floor of the Hatteras Plain at a depth of about fourteen-hundred fathoms." Bud gulped. "Saying it in fathoms makes it sound like a lot. What is it in feet?" "Well, ye landlubber, something under seventy-four hundred feet." Tom gave a grin. "In other words, more than one mile straight down!" Bud returned his pal's grin with a wan smile. "That all? Er, by the way, when do we test the Nemo's surfacing equipment?" "No time like the present," Tom replied. "I suppose it is kind of important!" Tom decided to blow ballast and let the jetmarine rise to the surface in unpowered mode. With the same flawless performance that she'd shown in her dive, the atomic sub responded to her young skipper's control and nosed upward in a seemingly effortless glide. The darkness slowly lifted. Then, with a lunge of surprising suddenness, the Nemo broke the surface, and Tom and Bud had to shield their eyes against the morning sun. "What a dream!" Bud murmured enthusiastically. "Your jetmarine can do anything!" "Quite a bit, at least," Tom replied with his customary modesty. "I even hope to solve the mystery of the phantom bottom." Bud scratched his head and was about to query Tom when the young inventor continued, "But first we have to locate the Vostok—then on to the mystery area!" "Aye-aye, skipper," Bud replied. "To the pirate's lair—X marks the spot!"

CHAPTER 10 SUBMARINE GHOST HUNTER

SUBMERGING ONCE AGAIN, the jetmarine turned her prow westward, traversing the Strait of Florida at jet speed and entering the warm waters of the Gulf of Mexico. "We'll have to be a little careful to avoid Cuba's territorial boundaries," Tom noted. "Things being as they are." The Nemo skirted the northern shores of the great island of Cuba, then proceeded onward south of west. "We're 'in the zone' now, Bud," Tom commented. "This is Rita Scheering's mystery region." "I don't see anything but water and more water! But as far as the Vostok—" Bud paused to check the cartographic readout. "Man, I can't believe how far we've gone in just a couple hours! Skipper, we're almost there!" He handed Tom a detailed chart which the young scientist studied for a few minutes, comparing it to a number of undersea survey photos taken by the Aia Ozkhodskaya expedition.

"There's a pretty good match of rock formations and ocean floor topography," said Tom at last. "If this oceanographic survey is accurate, we ought to hit the Vostok right on the button."

Tom switched on a powerful multifrequency light, developed to cut the gloom of deep waters over a wide area. Immediately the blue-green shadows fell back, revealing a sandy plain pierced by upthrusting rocks and dotted with forests of weird-hued vegetation. Countless species of aquatic life, dazzled by the Nemo's submarine sun, were streaking off in all directions.

Tom cut the speed of the jetmarine. "See anything, Bud? I don't."

"I'm not sure," Tom's pal replied hesitantly. "Kill the interior lights—it might help."

The two gazed out onto the fathoms-deep plain. Suddenly Bud reached over and touched Tom's wrist.

"Look over there," Bud said softly. The Nemo was approaching an odd-looking seabed formation, which appeared to lead downward into shadow.

Tom consulted the undersea chart. "It's not on the map—maybe too narrow." He looked up at Bud. "It's a river valley!"

Bud looked skeptical. "They have rivers under water?"

"This is evidence that this part of the Gulf was above sea level, and not so very long ago, either," responded Tom thoughtfully. "Maybe there's something to Madame Ozkhodskaya's 'Atlantis' theory after all!"

Tom steered the jetmarine out over the subocean chasm, keeping a close eye on the craft's detector instruments. Suddenly he gave a grunt of excitement and threw the lever to initiate a rapid descent.

"Metal down below," he explained, "and big!"

Bud craned his neck, looking around the narrow deck that formed the floor of the nose-dome. "Tom, I see it!" he cried. "I'm sure it's a sub!"

The young inventor was at his friend's side immediately.

"I guess this is it, all right," Tom said. "That's Cyrillic lettering on the side—Russian!"

"Looks like...C C C P."

Tom nodded. "USSR—Union of Soviet Socialist Republics! And the other lettering—O S T O—I'll bet the whole word is Vostok!"

Bud flashed a grin at Tom. "Nice navigating, mariner—if you don't mind a compliment from a land-lubber."

Tom deftly turned the jetmarine, maneuvering it to set down in the sand about one hundred feet from the looming hulk. "Just to be safe," Tom explained.

"Safe from what?" asked Bud.

"Soggy sea ghosts!"

As planned, Bud now took over the controls while Tom wriggled into a Fat Man suit.

Then he squeezed into the pressure chamber, releasing the sliding panel in the side of the submarine when pressures inside and out had equalized.

"Here goes!" he sonophoned to Bud..

"Nice day for a walk," was Bud's comment as he waved at Tom through the view-pane.

Tom stepped out onto the ocean floor.

He waited breathlessly to see what the effect on the Fat Man would be. There was no apparent change, and all instrument lights showed green. The young inventor sighed in relief and activated the suit's microjets, propelling himself toward the dark, angled hulk of the sunken vessel.

The Vostok had settled stern first, and Tom touched down underneath the upended bow, which was plaited in so much dangling sea growth it resembled a huge weeping willow. He switched his sonophone again to report to Bud. "Taking water samples now," he said. "But no sign of radiation."

"Any ghosts?"

"Ask me that after I'm inside! Anyway, this portside seems to be overgrown but undamaged," he said. "I'll head around to starboard."

"Roger," Bud answered. "I'll bring the Nemo along behind you."

Tom made his way underneath the bow, his underwater lamps, built into the "cuffs" of the suit's tubular arms as well as its chest and shoulders, casting an almost solid bar of illumination ahead of him. Reaching the other side of the ship, Tom methodically played the light along the hull. When he came amidships, the beam was swallowed up by a gaping jagged-edged hole.

"Here it is!" Tom exclaimed. "There's a gash big enough to drive a truck through."

Glancing back over his shoulder without turning the Fat Man, Tom saw Bud peering through transparent nose of the jetmarine. "Whoa, a direct torpedo hit!" Bud exclaimed. "I don't think so," Tom replied. He walked the Fat Man suit up to the hull, examining the upper steel plates more closely. "The force of the blast was out, not in."

"Where did that Russian official say the uranium was stored?"

"There was some shielded storage in Number Four hold, just aft of midships," Tom replied. "I'll head for there. I'll also want to check the bulkhead integrity of the missile bay, as well as the reactor itself. But all REM readings are normal," he added, referring to the measure of radiation.

"Tom..."

"What, pal?"

"All those men in the sub—her crew... You'll be plowing through whatever's left of them."

"It's been forty years, Bud," Tom replied, his attention on the Fat Man's instruments. "Dr. Nemastov is sure the whole sub must have ruptured, leaving no air pockets. Their remains have been taken care of by the marine life around here, some of which is too small to be visible."

Using the microjets Tom lifted off from the sea floor and propelled himself cautiously through the break in the hull, which was more than wide enough to admit him. He stood in front of the opening for a moment, illuminated by the Nemo's lamp. Then the Fat Man turned and trudged off out of sight.

"Visibility poor in here," Tom reported. "Hanging weed everywhere, like spider-webbing. The supergyros are having no trouble keeping the suit upright, thank

goodness."

There was a long pause. Bud envisioned his pal slowly making his way along a sharply slanting corridor, which by now would look more like an undersea cave.

"It's strange," came Tom's voice suddenly.

"What is, skipper?"

"How quiet it is... eerie and dark... and then every now and then something familiar appears out of nowhere, like a chair or a lightbulb...oh!"

"What did you find?" Bud demanded tensely.

"Are you sure you want to know? Part of a skeleton, picked clean." There was another pause. "Bud, I'm pretty sure the reactor coolant system blew; that's what made the hole. She would have twirled around and around going down, like a top..."

Bud didn't like the strange tone in Tom's voice. "Are you okay, Tom?"

"Fine. No ghosts yet...Here, the missile bay door—luckily the blast twisted the bulkhead and forced the door out of its slot." Tom presently reported that he was inside the missile bay. Then:

"What's—?"

"Tom?" Bud nervously barked into the sonophone mike. "Find something?"

"Using the arms... need to clear away this junk all around... hanging stuff blocking my..."

Suddenly Bud's sonophone was jolted by a burst of static! "Tom!" Bud cried into the microphone. "Tom Swift! Do you read?"

There was no reply!

CHAPTER 10 SPANIEL ISLAND

"TOM! TOM!" Bud cried frantically, clicking the sonophone unit to different channels. But only silence answered his calls.

A clammy sweat broke out on Bud's forehead. He was at the bottom of the sea, virtually alone. His best friend was in trouble, perhaps fatally injured. Both Tom's life and his great invention were his responsibility! He must rescue Tom.

"Tom, hold on," Bud shouted into the mike. "Hold on as long as you can. I'll be right with you!"

After checking the instrument panel to be sure the submarine would remain stationary, Bud sealed himself into the other Fat Man and hastened to the compression chamber. When the hatch panel was fully open he activated the suit's jet propulsion and came

flying out into liquid space, heading toward the gash in the side of the Vostok. Putting on hold all thoughts of spectral mariners, Bud plunged into the sub, trying to follow the traces Tom's passage had left. He found the missile bay, its thick door almost twisted off its hinges, and entered without hesitation. He swung about right and left with his two flashlamp beams, but could see no more than a couple yards in any direction due to the hanging creperie of vegetation.

Suddenly Bud realized his error. "What a dope I am!" he snarled, and switched his flashlamps off. As he had anticipated, he could now detect Tom's own flashlamps off in the distance.

"Tom!" he cried, forcing his way forward. He could make out the bulk of Tom's suit, standing placidly with its arms extended to full length but hanging limply. As Bud approached the other suit, he was overcome with dread—no one was visible inside the view-dome!

He can't have gotten out! Bud's confused thoughts shouted. Nothing can have gotten in—could it?

He rapped upon the side of Tom's Fat Man with his arm. Then, eerily, the rap was repeated in perfect rhythm—and not by Bud!

Despite the gyros Bud almost fell backwards as Tom rose into view behind the dome. His forehead was bloodied, and he had clearly been crumpled at the bottom of the suit below the dome's lower edge.

"Tom, can you hear me?" Bud shouted into his suit mike. Immediately, Tom nodded. But when he tried to respond, no message came through.

"Okay, skipper," Bud said in calmer tones. "Something's wrong with your sonophone. You can hear me, but I can't hear you." As both boys knew ASL—American Sign Language—they were able to communicate visually.

I'm okay now, Tom signed. There was a shock and I hit my head.

"I'll help you come back in," Bud responded.

No, need to finish. Come along if you want, was Tom's reply. He would clearly brook no further discussion.

Overcoming his trepidation, Bud followed along as Tom completed his brief survey of the Vostok. Much of the craft was inaccessible, but they were able to visit the reactor room, engine room, and what appeared to be a communications room, outfitted with dials and rows of old-fashioned monitor screens that weirdly reflected their suit lights. Everywhere they found the pitiful signs of humanity interrupted without warning.

As they were about to leave, Tom tapped on Bud's suit and gestured at a portion of the bulkhead. Bud could make out a light-colored streak, about a yard long and a few inches wide, completely devoid of aquatic growth.

Visitors, signed Tom. Recent.

They jetted back to the Nemo. Exiting the airlock and quickly stripping off his Fat Man, Bud hastened to free Tom. He accomplished this in a few moments. The young inventor grinned in relief.

"Wow! That was a close one," he said. "Thanks for the rescue. I mightn't have come to

for a long time if you hadn't come knocking."

"Looks like old Davy Jones doesn't like intruders." Bud managed a grin. "But what happened in there?"

"A couple things," replied Tom. "First, I think I must have been having some trouble with the oxygen feed—probably something minor, but I recall feeling strange and lightheaded. Then, in the missile storage bay, I disturbed something when I was flailing around."

"You mean you knocked something over?"

"No, I mean I got one of the bay's homesteaders good and mad! Suddenly something long and dark, about as thick as your arm, came whipping out toward me. I remember a sort of tingling all through my body, and my muscles seized-up—and then you awoke me."

Bud whistled. "An electric eel!"

"Or something like it," agreed Tom. "And oversized, too."

"Is that what caused that mark you showed me?" asked Bud.

Tom shook his head. "No way. It was caused by metal against metal, probably within the last six months. We're not the first topsiders to have entered the Vostok since she sank, Bud. And it looks to me her uranium stores are a little below what Dr. Nemastov was expecting."

"The Sea Snipers!"

"More than likely," said Tom. "I think we'd better head over to Spaniel Island and hope we've beat out the opposition!"

This time Tom didn't blow the ballast tanks but set off at jet speed, angling the hydraulic jets and adjusting the gyros so that the Nemo would climb toward the surface. As the craft cleared the edge of the undersea river valley, Tom turned her prow toward tiny Spaniel Island and throttled forward. The jetmarine was off like a shot.

Bud munched a sandwich, reading the expression on Tom's face. "I get it," Bud said.

"You wanted more time to study that valley."

Tom gave a rueful grin. "I'm always on the lookout for new ways to get into trouble. I was just thinking the valley might a good spot to solve the problem of the phantom bottom."

"You mentioned that before," Bud said. "It's news to me that phantoms have bottoms!"

Tom laughed. "Well, you asked for it, so here it is. For years, when fathometers on ships have been taking depth soundings, they often pick up a false bottom before getting the actual depth. This phantom bottom is like a mass that lies somewhere between the real bottom and the surface."

"What's the mass made of?"

"Some scientists say fish," Tom explained. "Others shrimp, and still others squid. I'm a 'squid' man myself."

Bud looked blank but interested. "Why?"

"Because the phantom bottom can change its position in the span of one day from three hundred to eighteen hundred feet or more," Tom explained. "The squid are better able

than fish or shrimp to make this great shift. Change in pressure doesn't bother them. And they have their own jet-propulsion system, too—like the Nemo's."

"I see," said Bud.

"With this sub," Tom went on, "we can go to any depth and find out for ourselves. But it'll have to wait."

The two submariners fell silent as the Nemo glided along at a moderate depth.

"Sonar showing something up ahead," said Bud presently.

Tom checked the readings. "It's the island."

"Will we surface right away?"

"No," Tom replied. "We can pull in close, but I want to look it over by periscope first." Although the jetmarine's Tomasite coating would prevent its being picked up on sonar or radar, Tom was concerned that a sensitive hydrophone might detect the whir of the Nemo's engines. After picking up some speed, he rose to within a few feet of the surface and cut the engines, allowing the craft to coast closer to the island on momentum. He then raised the periscope—a braid of optical fibers enclosed within a Tomasite tube that was no thicker than a soda straw. When small capillaries in the tube were pressurized, it became as rigid as a steel beam.

Tom leaned into the binocular eyepiece and adjusted the focus. He could see, in a single glance, the whole of Spaniel Island. It was exactly as described—a flat mass of rock and grasses dotted with a few wild palms, and no sign of habitation. The island was surrounded by tumbled sea boulders, sending up plumes of feathery spray when the waves dashed against them.

Seeing nothing, and detecting no sign of electrical activity with their instruments, the boys decided to surface and go ashore. This turned out to be a difficult project, as the seabed around the island was too shallow for miles around to accommodate the Nemo. But they finally discovered one area where a rocky outcropping on the island plunged down into a long and deep seabed ravine that formed a suitable access channel for the jetmarine.

The Nemo inched up close to shore and surfaced. Tom anchored the sub. As they were still separated from the beach by a strip of water, Tom deployed a bridge-like gangway that the jetmarine carried folded compactly next to the Fat Man suits. They crossed over and set foot on the warm, pebbly sand.

"You're sure this is the resort with the tennis courts and free massage?" remarked Bud ironically, looking around.

"Welcome to Spaniel Island!" said Tom.

They walked the perimeter of the islet, then criss-crossed through the middle. There was no sign that any human being had ever left a footprint on the sands.

"Bermuda it's not," Bud commented.

"I was expecting a little more," acknowledged Tom, "like a helicopter pad and maybe a shed to keep the odd torpedo out of the sun."

"The Snipers could still base their sub here, Tom," Bud pointed out. "That cut in the seabed that we're floating in looks mighty deep. Maybe there's an underwater opening

into a secret sub base beneath the island!"

"Could be," Tom said. "It happens in books. For the sake of Hank Sterling, we ought to take a look. So it's down we go, matey!"

Tom and Bud reentered the Nemo, and prepared to descend. But Tom suddenly called Bud to the sonarscope.

"The phantom bottom!" Tom said excitedly. "Like an overlay on top of the echoes from the real bottom. We'll solve the mystery after all!"

The jetmarine began a slow descent, and Tom noticed that the "bottom" was keeping its distance.

"They're probably afraid of the sea lamp," he declared, switching it off. The boys waited for their eyes to grow accustomed to the semi-darkness of the narrow crevice, allowing the sonar system to guide the craft safely.

"What's that?" called out Bud. Tiny patches of light, all moving together like Christmas bulbs on a string, were appearing out of the darkness all around them, swaying this way and that.

Suddenly the hull reverberated with a strange sound, as if something were being dragged across it. Tom switched on the exterior lamp and the two gasped in unison.

"It's a giant squid!" Tom cried. "More than one!"

"Big as a submarine," Bud groaned. "Look at the size of its eye—like a barrel top! We'd better rise up and out of here!"

Tom mused for a second. "Despite their proportions, these creatures aren't usually aggressive. I think it'll just get out of our way."

"You're a nice guy, Tom," Bud said fearfully, "but aren't you carrying your love of animals too far? This thing could've been trained as an attack squid!"

Tom touched the controls at his finger tips and the jetmarine started forward.

"I think this will scare him," Tom said coolly. But he had not reckoned on the reaction of the creature to being cornered within the ravine. With a vicious, lightninglike movement the squid lashed a tentacle against the nose of the Nemo. The jetmarine shuddered under the impact, throwing both boys to the floor.

"He'll break through!" Bud cried as the monster closed in around the bow-dome with all its crushing tentacles. Using its own water-propulsion jet to twist and pivot, the squid seemed intent on slamming the Nemo against the craggy, unyielding walls of the undersea crevice!

CHAPTER 11

MONSTERS OF THE DEEP!

TOM AND BUD braced themselves, fully expecting to hear the protest of metal against rock. But to their shocked surprise, the squid released the craft and continued its turn. "I don't get it," Bud whispered as the weird sea creature jetted away out of sight. Tom switched off both the exterior and interior lights. The Nemo was in darkness. The jetmarine's cockpit was illuminated only by the faint glow of the instrument panel. "The squid's thrown us into some kind of cave," Tom said, examining the sonarscope monitor. "It extends on a little ways, then widens out."

"An underwater base!"

"We'll see."

Tom cautiously applied the hydraulic jets, looking for a sign of light either above or in front of them. But there was only complete darkness.

"We're in the open area now," he said presently. "The surface is ten feet above us."

"Ten feet?" challenged Bud. "We went down a lot further than that!"

"Yep—which means this surface is the bottom of some kind of trapped air bubble underneath Spaniel Island," said Tom with growing excitement. "Bud, you may have been right! And this may be where the Sea Snipers have imprisoned Hank Sterling!"

The Nemo broke the surface and floated motionlessly in the utter blackness. "The air pressure's high," Tom noted, reading the instruments. "It has to equal the pressure of the water it's pushing aside, of course. But it won't hurt us if we spend some extra time in the compression chamber both coming and going."

Presently, their lungs and bodies prepared for the change in pressure, Tom and Bud climbed out through the topside hatch. All was darkness.

"These guys must have imported some L.A. smog to make them feel at home," whispered Bud. The air was breathable but permeated by a pungent petroleum-like odor and thick with moisture.

"Probably trapped exhaust fumes from the engines of their sub," Tom replied softly.

"And I'm glad to smell it, because it means the Snipers aren't in residence at the moment—or they'd have turned on their air-pump system."

Ready to throw themselves back in the jetmarine at the first sign of hostility, Tom and Bud switched on their portable flashlamps. The lamps could be adjusted to produce an illuminated area of almost any diameter, even at great distances, though their beams did not dazzle the eye.

Playing the beams back and forth they began to create a mental picture of their surroundings. The Nemo had surfaced in a small lagoon, completely enclosed by an arching ceiling of rock. Though the main part of the cavern appeared to be natural, it was obvious that a section of the wall had been hollowed out artificially, producing a flat shelf only a foot above the still, glassy waters. Docking equipment, including cranes, lined the shelf; further back were several small sheds and piles of containers, including barrels of diesel fuel. An electric generator stood among the other items.

"Nobody home!" Bud said.

"But I've got the distorter on just in case," Tom commented. "Now let's pay a visit to shore."

The young inventor had set the jetmarine's controls to respond to a remote-control transmitter which he held in his hand. At his signal, the Nemo moved toward the dock area a foot at a time, turning its length parallel to it just before gently bumping against it. The boys easily jumped down onto the surface of hewn rock.

They quickly surveyed what they could of this subsurface pirates' cove, but they found little of use.

"I'd say this was mostly just a warehouse for them," Bud observed. "Maybe a place to refuel and repair their sub."

"Guess so," said his companion, disappointment in his voice. "Let's look in that last shed, then get out of here."

The last shed was made of metal like the others, and about seven feet square. Using some tools from the jetmarine the boys pried open its lock and stepped inside. There was only a single item within it, but that item made Tom's heart leap—a cot!

"I'm sure someone was imprisoned here!" he exclaimed.

"If it was Hank Sterling, I'll bet he found a way to leave a message!" Bud said encouragingly. They frantically scanned the walls, the floor, even the ceiling, and Tom pulled the cushion off the metal frame of the cot and examined it. "Nothing!" he said in disgust.

"Wait, Tom..." cautioned Bud. He was examining a flange in the cot frame that had been covered by the pad. "Look here!"

Some marks had been scratched into the rusty frame, as if by the edge of a coin or the point of a nail. They read "HASNTC" and were followed by several numerals.

"HA S—Hank Sterling!" cried Tom. "And NTC could stand for Nantic!"

Bud clapped Tom on the back. "Here's some more good news, skipper—those numbers match the date the Nantic was attacked!"

They returned to the Nemo in a run. Now at last they knew Hank Sterling had survived the sinking of the Nantic and was probably being held captive, perhaps on the Sea Snipers' submarine!

After careful decompression, the boys guided the jetmarine back into the underwater channel.

"What if we run into our pal Tentacle Tim again?" asked Bud.

"All we can do is try to slip through his grip," Tom answered.

The darkness suddenly lessened as they emerged from the cave into the aqua-ravine. Before, the crevice had been mostly in shadow, but now the sun was shining down into it, filling it with deep blue-green.

"Oh no!" gasped Bud.

Dozens of giant squid floated, whirled, or jetted through the abyss, their vivid brown and red colorations making them stand out all the more against the charcoal-colored rock. Like the outlaw patrons of a wild west bar, the creatures turned their vast oval eyes toward the intruding Nemo. Bud could almost hear the clicking of their parrotlike beaks.

One fellow, the largest of all, darted toward them. In fact, he seemed intent on taking a bite out of the jetmarine's nose-dome! Bud flinched back—but so did the squid at the same instant, retreating a few yards.

"Am I just plain ugly, or—?"

"I turned up the sonar waves to full blast," explained Tom. "We can't hear them, but they can feel them."

"Maybe it wasn't such a good idea, skipper," said Bud. "I think the squid squad is getting a little perturbed!" Though Bud was joking in his usual way, the situation was like something from a horror movie. The multi-armed creatures began swirling about, as if positioning themselves for a massed attack. Though Tom and Bud knew that the sea-dwellers were almost brainless, the effect was still unnerving.

"Here comes Daddy Longlegs again!" Bud groaned.

At that moment a new player entered the game! A sleek, ribbonlike form shot through the line of squid, aiming directly at the giant menacing the Nemo.

"Electric eel!" Tom exclaimed.

At the touch of the eel the squid jerked back and then whirled about, beak snapping furiously. The pointed, daggerlike teeth of the eel raked the squid's tentacle, and soon the water was turned to a froth of blood and squid-ink.

Tom's eyes were glued to the sonarscope. "Hang on, Bud," he called. He adjusted the gyros and the deck of the Nemo took on an extreme slant, tilting more and more until the jetmarine was almost vertical, nose toward the sky. Tom and Bud were forced to stand on the handrail supports.

Suddenly the sonarscope showed that the battle of the monsters had taken them off to the side for a moment; there was now a clear path through the other squid up to the surface.

Tom gunned the hydraulic jets. "We're outta here!"

CHAPTER 12 AN UNEXPECTED MEETING

THE JETMARINE took off like a rocket—literally! She roared upward through the momentary gap in the "squid squad" line, turning the rock face of the undersea channel to a blur. Through the observation dome the glimmering surface above seemed like a crystalline wall which the Nemo was approaching at race-car speed.

The craft broke the surface like a leaping dolphin, jetting a full twenty feet into the

sunlight before sliding back down, tail first, into the waters of the Gulf. If not for the gyros and the automatic guidance program Tom had punched in, the jetmarine might have landed in a belly-flop that could have broken it apart.

As it was, the shock was powerful and Tom and Bud almost lost their grip. But the sub reentered the waters smoothly and leveled itself. Tom hove about, speeding out of the Spaniel Island subsurface channel, and in moments the Nemo was again cleaving the waves—from beneath them!

The two submariners caught their breaths, exchanging glances but no words. But presently Bud said, "Tom, that eel—do you suppose—?"

"The same one," Tom declared, "the one from the Vostok. It must have followed along in our wake."

"It must've liked you, pal!"

"Sure," responded Tom, "as a snack."

Amazingly, only a few hours had yet passed since the launching of the sub at Key West. Before leaving, Tom had told the others at SONRC that he would be maintaining radio silence for security purposes, not wishing to give away his position. Now, however, he saw no harm in surfacing and radioing that all was well and the jetmarine's shakedown cruise a success.

"Tom, that's just fantastic!" came the radioed response from Kaye. "Any sign of... anything?"

"Just a lot of water," replied Tom evasively. "But listen, Graham, I think I'll spend a few more days testing out the Nemo in this area before we head back up north. Could you relay the message to my father? I'll contact him directly later in the day."

"Sure will," Kaye responded. "You won't have any trouble reaching him when you do—he's flying down on the jet that was to bring your remaining workers back to Shopton." This news surprised Tom, as it hadn't been a part of their original plans. Was there a new development?

"Where to now, squid kid?" asked Bud after Tom had signed off.

"Except for Guantanamo in Cuba, the nearest U.S. military presence in these waters is in Puerto Rico," said Tom. "I think it would be safest to berth the jetmarine there for the night. It'd also make it easier to give the details of what we've found to the authorities without broadcasting them openly."

"I know," Bud commented. "And you don't want to leave the area and miss a chance to rescue Hank Sterling."

Tom nodded; his best friend knew him well. "But I wonder if Dad intends for me to meet him at Key West?" he added.

Tom piloted the jetmarine south through the Yucatan Channel, southeast past the Cayman Islands and Jamaica, then almost due west, skirting Haiti and the Dominican Republic en route to Puerto Rico. Nearing the southwestern coast of the American island, the Nemo surfaced again and Tom radioed his father, who had arrived at SONRC.

"I've invited the Enterprises employees who remained at Key West for the jetmarine

launch to fly with me to Kingston, Jamaica, for a short vacation at company expense," Damon Swift explained.

"What a great idea!" Tom burst out. "They really deserve it."

"I'd like you to join me there, Tom," Mr. Swift continued. "Your jetmarine should be secure in Puerto Rico—I understand you've already made arrangements with the Coast Guard facility at Punta Brea. You and Bud can unwind while you tell me about your experimental findings. Plenty for your Mom and the girls to do, too."

"Girls?"

"Oh, I thought I mentioned it—Sandy invited Bashalli Prandit to join us. I assumed you wouldn't mind."

"No, no, of course not," said Tom, "but Dad—"

"What's that, son? Sorry... losing your signal..."

Tom hung up the microphone, looking both amused and chagrined. "Guess he's on to that trick," Tom remarked with a mock grumble. Bud only laughed.

Tom and Bud spent the night at Punta Brea, berthing the Nemo at the secure and guarded Coast Guard facility, now operated by the new Department of Homeland Security. They spent much of the evening at a hastily arranged meeting with Commander Adland, the facility's commanding officer, and officials from the U.S. Navy and the FBI, recounting their exploration of the Sea Snipers base—including the all-important finding that Hank Sterling had survived the sinking of the Nantic and presumably was being held captive. Tom also contacted Admiral Krevitt before retiring. The Admiral promised he would relay Tom's news concerning the Vostok to Dr. Nemastov.

The next morning Tom and Bud were flown by Navy jet to Kingston, Jamaica. At the Kingston International Airport, colorful and bustling with activity, they were greeted by Mr. and Mrs. Swift, Sandy, and Bashalli.

"It's good to see you, Bash," said Tom warmly. "I'm glad you could join us."

"And I am glad to be joined," she replied. "My little nephew Rafir will take my place at The Glass Cat. The coffee will not suffer much."

On the way back to the hotel where the entire Shopton party was staying, Tom and Bud provided a carefully abbreviated version of their morning adventures, not wishing to raise false hopes regarding Hank. But at the hotel Tom spoke at length to his father and provided the omitted details.

"It's wonderful—unbelievable—that Hank may still be alive!" exclaimed Tom's father.

"But he's still in terrible danger."

"Will you telephone Mrs. Sterling, Dad?"

"Not just yet," Damon Swift replied after a pause. "Let's allow the authorities 48 hours to act, now that they have at least a notion of the route of our enemies. I think we'll know a great deal more very soon."

As Tom and Mr. Swift chatted, they greeted the various members of the Shopton party, including Arvid Hanson, Wes Beale, and, at length and breadth, Chow Winkler.

"Chow," said Mr. Swift, "we've only been in Jamaica for a couple of hours, and it looks

like you've already shopped Kingston through and through!"

"What, this?" asked Chow with a lopsided grin, gesturing at his shirt of iridescent colors.

"Weren't nothin' to it! Bought it at a stand smack inside the terminal."

"I hope you wear it a lot, pard," said Tom.

"Ya like it?"

"Sure," he responded. "It reminds me of some colorful long-armed friends we made down on the bottom of the sea."

"Hmm," said Chow uncertainly. "If you mean fish, I'm gonna take that as a compliment. I love fish, fixed up Texas-style."

Tom and his father relaxed together in the lobby for another hour, sipping refreshments. Then a young bellboy in a snappy uniform came up to them and flashed a broad smile.

"Mister Sirs, are you the Swifts?" he asked.

"Yes," Tom responded.

"There is a man in the lounge who asks to see you, both two."

"A man?" repeated Tom's father. "Did he give his name?"

"Yes he did," said the boy. "And I should tell you, it is called Mister Dansitt."

The two Swifts looked at one another in amazement. "Sidney Dansitt here!" exclaimed Damon Swift. "Does he think he'll be safe from the authorities?"

"He may be just taunting us," Tom said. "But the lounge is a pretty public place, Dad—it might be worth our whiles to see what he wants. Maybe he knows by now that we've been to Spaniel Island."

"Yes!" agreed Mr. Swift. "He may want to offer some sort of deal." He turned to the boy.

"Please tell the man we will see him right away. Here is something for your trouble." He gave the boy some coins.

"Thank you, sir," said the boy, hurrying off.

After a whispered discussion, Tom and his father crossed the lobby and entered the lounge. Though not crowded, several other guests were present, as well as a bartender.

"I don't see him," said Tom.

"Say there, over here!" came a voice across the room. A tall, middle-aged man waved them over to an empty table. He rose and stuck out a hand in the direction of Mr. Swift.

"George Dansitt!" he said heartily. "Pleased to make your acquaintance."

"Then you're—" began Tom.

"That's right, Sid's old man. McIntosh and Dansitt Shipping. Come sit down, you two."

Tom and Mr. Swift settled down at the table with Mr. Dansitt. They were more than a little dazzled by this turn of events.

Dansitt leaned forward on the table, looking at each of them in turn. "I know my boy has caused you some trouble," he said. "You have my apology. I want to make amends however I can."

"Then you're aware of Sidney's behavior?" Tom asked.

"I am. It's really something, isn't it?" Dansitt let out a long sigh. "His mother and I can't account for it. Suddenly he stopped calling, stopped writing, stopped visiting. Even changed to a different program at school. But who can understand kids, eh?"

"Was there any sign of trouble at school?" inquired Mr. Swift. "Anything in his personal life?"

"Nothing I can think of," replied George Dansitt. "He has a good life—always happy."

"Sometimes," Tom began cautiously, "problems develop that are hard to talk about, even to—"

"Sid had a great relationship with me, and with his mother!"

"Yes, sir!" Tom gulped. "I'm sure he did."

Mr. Dansitt tapped on the table with his thumb for a moment. "People have been going around asking questions about him," he said. "Under the circumstances I suppose that's appropriate—but I wish you had come to me first."

"I don't know which 'people' you're referring to," Mr. Swift retorted coolly, "but you must realize that your son has behaved recklessly, and even endangered my son's life!"

"Yeah, I know," replied Dansitt, his voice dropping. "And the FBI came to our home in Baltimore to grill us. Sidney is suspected of being part of that blackout gang, apparently. No one will tell us why, exactly."

Tom and Mr. Swift said nothing.

"Well," said George Dansitt, "I was in the Caymans on business, as I often am, when I heard that you two were visiting Kingston. Wasn't too hard to look you up."

"Evidently not," said Tom, "considering that we just arrived this morning."

"Oh, I have my ways," Dansitt responded with a wink. "That's how the game of business is played, you know. At any rate, I wanted to apologize, and tell you I'll do whatever I can to help you locate Sid."

Damon Swift gave a polite nod. "Thank you."

"And then," Dansitt continued, "there's the other thing."

"What?" asked Mr. Swift.

"Business idea—a deal between Dansitt Shipping and Swift Enterprises."

Tom and his father exchanged glances. "What did you have in mind?" asked Mr. Swift.

"Development—new technology," responded George Dansitt. "Submarine technology, in fact. But let me be direct. I want to hire you folks to build and demonstrate a submersible that can break the sound barrier under water!"

CHAPTER 13

CHASING A PHANTOM FACE

"SURELY YOU'RE JOKING, Mr. Dansitt!" exclaimed Damon Swift. "What you're

suggesting is not only well beyond the reach of present technology, but may be physically impossible!"

Dansitt smiled blandly, almost mockingly, and turned his gaze toward Tom. "Now that we've heard from the older generation, what do you say, young man?"

Tom shifted uncomfortably in his chair. "Obviously, it would be quite a challenge. But I can see how it might be done." He turned toward his father, looking a bit sheepish. "Dad, the atomolecular-decoupler engine prototype has shown a lot of promise in the tank tests."

"There, you see?" Dansitt said, smugly.

"And what do you know about this, Dansitt?" demanded Mr. Swift.

"Only what I read in the funny papers. Or rather, what my staff reads in the scientific journals. You've had the Gervaise engine under development for more than a year, haven't you? Time to take it on the road! And I'm just interested in breaking the speed of sound as it is in air, not water—you know, Mach 1. It's air transport we're competing with."

Damon Swift gave Dansitt a skeptical look. "But of what benefit is this project to you and your company?"

"What benefit?" George Dansitt laughed and pulled out a cigar—which he set down unlit. "Swift, my company is fighting a war against air shipping, and the weapon of choice is trip time. 'How fast can you get it there?' they ask. Imagine underwater travel between the continents—no chance of crashing—at supersonic speeds! And with the bad guys buying missiles nowadays, sub travel will be all that much more desirable."

"The bad guys are starting to buy torpedoes," Tom said pointedly, wondering how Dansitt would react.

"That so? Well, for now at least it's the image of air travel that's suffering. Travel by surface ship as well." He leaned forward, shifting his gaze back and forth. "So? Interested? Do I go elsewhere?"

Mr. Swift was slow to answer. On the one hand the challenge, audacious as it was, intrigued him. Accomplishing the seemingly impossible was what Swift Enterprises was all about. Yet he had never cared for men like George Dansitt, crassly commercial and aggressive in manner.

"Give us a few days, Dansitt," he said at last. "There are many things to consider, and it's not our way to make promises we can't keep."

Dansitt nodded, understanding. Yet his face bore a frown. "I don't know that I can give you a few days."

"When were you hoping for a demonstration of the submersible?" Tom asked.

Dansitt studied the end of his cigar, still unlit.

"In two weeks," he said.

Damon Swift stared at Dansitt unbelievably. "Two weeks? How can you possibly—" "Listen, Swift," the man interrupted. "I'm dealing with a problem. McIntosh and Dansitt isn't doing so well. In fact, it's doing lousy. It's been failing for years, and these ocean incidents broke the camel's back. The Board of Directors—which is mostly McIntosh

and not much Dansitt—meets in sixteen days. If I don't go in there with a long pass, I'm history. So it's personal, and I've got a deadline. It's well known that you've developed a new high-speed sub. Probably why you're in Jamaica, am I right?"

He leaned in conspiratorially. "I'm saying pull the sub's engine, put in the new prototype, the atom-whatever. I've already rounded up some potential investors on the strength of the Swift name. I'll divide them in half. The first group will see you off from somewhere on the east coast; the second group will see you pull into port a few hours later somewhere in continental Europe. A supersonic underwater crossing! Get the idea? My lawyers will be in touch. Here."

George Dansitt reached across the table and handed Tom and his father pens marked with the logo McIntosh and Dansitt Shipping Company. Then he rose from his chair. "Say yes, and I'll send you the t-shirts!"

Tossing down a business card on which he had written his local telephone number, Dansitt walked rapidly from the lounge.

"Dad," said Tom after a long pause, "I think it's possible."

Mr. Swift smiled ruefully and twirled the business card between his fingers. "Possible or not, it looks like we're going to try!"

The father and son team worked late into the night.

The next day, after a refreshing morning swim with Bud and Sandy, Tom took up a shaded position beneath a palm and watched his sister play some two-person volleyball with Bud on the lawn of their hotel. That at least was Tom's intention; but within minutes he had pulled out a notebook and pencil and was hard at work on various aspects of the new project. He looked up at the sound of a voice.

"You know," said Bashalli Prandit, "you ought not just assume that we women could not understand your science projects, Tom. Or that we would have no interest."

"I'm sorry," said Tom. "I just—I guess—"

Bashalli plopped down next to him. "You are forgiven. But now tell me how you plan to make a submarine go so fast!"

"Well," he replied thoughtfully, "are you very conversant in theoretical physics?"

"Are you joking?" responded Bashalli, her dark eyes twinkling. "I think of little else!"

"Then of course you know about atoms and molecules."

"Molecules are atoms joined together. Atoms by themselves are tiny things, and atoms of the same kind make up the elements, like iron and gold. Marry different kinds of atoms together as one and they are called compounds."

"That's right," said Tom. "For example, water is a compound, and every water molecule is made up of hydrogen and oxygen atoms—basic elements. Now tell me this. Mix hydrogen and oxygen together, and toss in a lighted match; you get a big explosion. They're highly combustible."

"I know," Bashalli said. "As in that big blimp, the Hindenburg."

"So tell me," Tom continued, "if hydrogen and oxygen are so combustible and burn like crazy, and water is made of hydrogen and oxygen, why does water put out fires instead of cause them?"

Bashalli drew the back of her hand across her brow, as if trying to remain serene.

"Because of the way the atoms fit together."

Tom nodded and gave her a reassuring smile. "That's exactly right. Now a few years back, a French scientist published a paper that suggested a possible fifth state of material substance—that is, in addition to solid, liquid, gas, and thermonuclear plasma. He called it the atomolecular-disjunct-phase state, or ADP. It extends basic quantum theory to the—" Here Tom interrupted himself. "But maybe I've gone a little too far, huh?"

"No, Tom," Bashalli replied. "So far you are very far from having gone too far. Please go on."

"All right. Well, Swift Enterprises developed a prototype of a radically new type of underwater propulsion engine based on the theory of Dr. Gervaise. We shoot a thin stream of water—just a molecular film, really—across a disk of dense metal rotating at unprecedented speeds. The rim of the disk is moving at about one-third the speed of light! At that speed, forces that are normally confined within the atom start to 'leak.' When the water molecules pass through those forces, they enter the ADP state for a very very tiny fraction of a second. Do you follow me?"

"I do, Tom. And so I suppose the oxygen and hydrogen are no longer hooked together, like husband and wife; and so you can set them on fire."

Tom chuckled in polite disbelief. "That's great! They ignite explosively—and then an instant later they get back together and return to being water again. But the water retains the huge amount of energy acquired from the explosion. And so the water zooms out the back of the jetmarine, and drives the sub forward."

"Ah," said Bash. "Now tell me this. Heat is just molecules in motion, is it not?"

"Well, yes."

"Then when you put energy in water and make it move, you are heating it. So I should say that what you have invented, Tom Swift, is the tea kettle!"

The young inventor laughed at this. "There's a sort of technical sense in which you're right, Bash. But this kind of 'tea kettle' can't make water boil. In fact, during the nanoseconds after the water atoms have re-coupled, it has a 'virtual' temperature well below freezing! But that phase is transitory. The water coming out the jets will be about 30 degrees warmer than the water entering through the intake ports."

During the conversation Bud and Sandy had come over and sat down next to Tom and Bashalli. Now Bud spoke up. "Okay, skipper, so you have a super-powered version of the hydraulic jet you have now. But what about friction?"

"And what about underwater sonic booms?" asked Sandy. "I've heard loud noises hurt the whales."

"We've been working on all those problems since Dr. Gervaise asked us to develop the prototype," Tom replied. "We have some interesting solutions that I'm anxious to try out in the field."

"A very damp field," commented Bashalli. "Let us hope the fishes welcome you."

By the early afternoon, after conferring with a number of Enterprises employees and departments, Mr. Swift contacted George Dansitt with his formal acceptance of Dansitt's

proposal. Then he yielded to the urgings of Mrs. Swift and the girls and joined them for a shopping and sightseeing expedition in Kingston.

"But if I have to make the sacrifice, I want you two with me," he demanded of Tom and Bud. Chow Winkler, ever in search of new eye-blasting finery, also joined them, but soon headed off on his own.

After an hour of wandering up the crowded Boulevard Atlantique, Tom and Bud were excused from perusing the Façon de la Sol clothing emporium, and they willingly relaxed on a bench overlooking the bay. It was a day of sparkling sun and crystal skies, and the two could see Wreck Point on the horizon, slightly to their right.

Bud stretched in the sun, the sea breeze licking his dark forelocks. "This is what it's all about, Tom," he said. "Dozing in the warm sun."

"What about giving the slip to a squid?" asked Tom playfully.

"That too is what it's all about," his pal conceded. "Among many other things." Bud lazily cast his gaze past Tom toward the crowds and shops. Suddenly he stiffened.

"Tom!" he hissed. "Sidney Dansitt!"

Tom was careful to respond with casual movements. "Don't look at him—look out toward the bay," he said softly. "Where is he?"

"Leaning against the far end pillar of that restaurant patio," responded the young pilot.

"He's mostly behind the pillar, but his face was sticking out. He's watching us, obviously. But I don't think his eyes were on me when I reacted."

"Let's see if he's still there." Tom casually brought up his hand to the temple of his sunglasses. With a touch, a transparent secondary image was visible to Tom, superimposed on top of the normal view. This nonelectronic image was shunted, periscope-fashion, from tiny "light ducts" set into both sides of the sunglasses frame. Tom made some unnoticed motions which adjusted the image, bringing the right-rear quadrant into focus. "Still there," confirmed the young inventor, "but on the move. Looks like he wants to position himself behind us."

"Good old Sidney," said Bud. "Tom, do you prefer the right drumstick or the left?"

"Mmm, the left."

"Ready on three?"

"Start the countdown, flyboy!"

The two now crouched forward, as if looking at something on the ground. His hand blocked from Dansitt's view, Bud silently held up one finger, then a second. And then—Tom leapt to his feet and whirled round the left side of the bench, straight toward Sidney Dansitt, now mere yards away. Bud was even more direct, using the seat and back of the bench like stairsteps and flinging himself through the air in Dansitt's direction.

Dansitt blanched. He was hemmed in left and right—but there was a door behind him, into the restaurant. He whipped himself backwards through the door, Tom and Bud on his heels.

The chase that followed was half-thriller, half-slapstick. The door led into the kitchen of the restaurant, and Dansitt's trajectory led him into a cook bearing a platter of uncooked potato slices. The cook and the slices went tumbling, and Tom and Bud found

themselves sliding and scrambling helplessly. Other kitchen personnel and slippery edibles, including fish and an ice sculpture, were drawn into the chase—to their detriment, and the boys'.

They struggled their way through the dining room and the front entrance, and out into the street, ignoring the angry voices behind them.

"There he goes!" cried Tom, pointing. Dansitt was half a block ahead, sprinting away among the boutiques of Shopkeepers' Row. Both Tom and Bud were excellent runners and closed the distance in moments, skillfully dodging the well-dressed tourists packing the street.

"Give it up, Dansitt!" yelled Bud, only ten feet behind his quarry. But Dansitt was not persuaded. Passing a bicycle shop, a row of fine English bicycles neatly arrayed in front, he managed to pivot on one foot, barely breaking rhythm. As he swung around he hooked a bike by the handlebars and, continuing the circle, flung it straight at Bud! Bud veered sideways, the bike only scraping his arm. Unfortunately, the move caused Bud to crash into the line of bicycles, producing an impressive slow-motion collapse as one bike upset its neighbor, and so on to the end.

Tom now took the lead, chest heaving, as Dansitt plunged into the middle of the street. The meandering crowds, unfazed and oblivious, looked on with mild curiosity, as if wild chases were an ordinary sight in downtown Kingston, Jamaica.

Tom began to close in on Dansitt. Hurling himself forward, he grabbed for the flying tail of the latter's unbuttoned shirt. It was almost in reach. His fingers touched it, and—he stumbled. Tom's feet went out from under him and he might have broken a bone had he not been able to convert his fall into an awkward, but serviceable, shoulder-roll. The athletic move put him back on his feet, but his adversary had regained some distance, and Tom's jarred muscles were beginning to fail him. His sprint became an uneven trot, echoed just behind him by Bud Barclay.

"F-forget it, Tom," Bud gasped. Gulping the air, the two stumbled to a halt, heads down, hands on their knees.

Looking up after a moment, Tom was startled to see that Dansitt had stopped his headlong flight. He too was trying to catch his breath, half a block ahead. Their eyes met, and Dansitt gave forth his customary leer.

"Hey Tommy!" he called. "Some fun, huh?"

Suddenly a large figure stepped off the sidewalk and loomed behind Dansitt, who flinched when a pudgy hand came down on his shoulder near his neck.

"Brand my hoss thieves!" said Chow Winkler. "What the Rio Grande's goin' on here?" The cowpoke now took a good look at Dansitt's face. "Say, ain't you that Dansitt pokey-poke that Tom—?"

But the leathery Texan could get no further. Dansitt twisted himself free, causing Chow to lose his balance in the process. Chow sat down hard on the pavement with an explosive grunt, and Dansitt charged off between two buildings, shooting Tom and Bud a last look that bespoke both fear and arrogance.

Helping Chow to his feet, the boys tried to see where their quarry might have gone. But

it was no use.

"I'as jest coming out of a store when I saw you two down the street a-runnin' along my way, with this other owlhoot ahead o' you," Chow explained. "Didn't know till I took a good look that he 'as the same as that picture-drawin' you showed around."

"Still, we almost got him," said Tom, "thanks to you, pard!" Chow beamed.

The three quickly rendezvoused with Mr. Swift and the others and told what had occurred. Mr. Swift in turn contacted the Kingston police and the U.S. authorities involved in the Sea Snipers case. Finally, Mr. Swift called George Dansitt at his hotel. The elder Dansitt seemed shocked.

"Sid's here in Jamaica?" he exclaimed. "Why didn't he try to contact me? He knows where I always stay."

"Perhaps he's afraid you'll alert the authorities," remarked Mr. Swift.

"Well, he's right," responded Dansitt. "He broke the law and ought to pay the price. Don't worry, Swift, I'm not hiding him myself."

"It never crossed my mind," said Damon Swift—though indeed it had, on more than one occasion.

In light of the presence of their enemies in Kingston, as well as the new project at Swift Enterprises, Mr. Swift decided it would be best to postpone the remaining several days of the Jamaican holiday. He contacted Arvid Hanson and the several other Swift employees, explaining the situation. To carry the party back to Shopton, a comfortable commuter jet, owned by the Swifts, would fly down to Kingston from the Citadel, the Swift atomic research facility in New Mexico. Tom and Bud would be piloted back to Puerto Rico on a Navy jet, leaving Jamaica almost immediately.

The short flight over the Caribbean was without incident, landing at the former Coast Guard base in late afternoon, the sun still high in the sky.

But when Tom and Bud asked to be driven to the dock where the jetmarine was berthed, their uniformed driver shook his head curtly. "I'm sorry, gentlemen. I've been ordered to take you to Commander Adland without delay."

"Must be something big," whispered Bud as he sat next to Tom.

As they braked to a stop before the Commander's office, Adland himself hurried out to greet them.

"Has something happened?" asked Tom.

"A major development," said Adland pointedly. "We think we've received a message from Hank Sterling!"

PIRATE PORT

"WHAT DO YOU mean, Commander—you think you have?" Tom demanded.

"What I mean," continued Adland, "is this. While you were en route back from Jamaica, one of our men was approached by a resident of Palmitas, which is a little beach town near Humacao, about sixty miles distant on the east coast. It's mostly seasonal rentals and that sort of thing. This man, a ham radio enthusiast, said he'd been getting interference on his setup throughout the morning—bursts of static in a regular rhythm. He thought it was just some kind of repetitive machine static at first, which motors sometimes produce. But then it occurred to him that part of the rhythm sounded like Morse Code for 'S O S,' which unfortunately was the only bit of Morse Code he knew. He decided to make a tape of it, but after just a few minutes it stopped dead."

"You have the tape, then?" asked Bud excitedly.

"Yes, and it's Morse Code all right. Basically someone is sending the distress signal over and over for twenty reps. Then comes 'Sterling...sub...to Trinidad...ex PR today.' Then he starts the cycle over again."

"Leave it to an electronics engineer to figure out how to send a wireless message from prison!" Tom exclaimed. "Do you have any idea where the signals were coming from?"

"We do indeed, because they were also picked up by some others in the general area, and we were able to roughly estimate distance and direction. It probably came from one of the beach houses a few miles north of Palmitas."

"You've got to get your men there quickly!" Tom cried. "They may be putting out to sea today!"

"They may have already done so," cautioned Commander Adland. "That may be why the signals stopped abruptly. But when we identified the likely transmission area, we were able to contact one of our sea patrol boats and order them ashore to conduct a house-to-house search. They're armed. Of course we already have aircraft and seacraft on the lookout for the pirate sub."

Tom nodded thoughtfully, but looked worried. "How long ago was this?"

The Commander glanced at his watch. "The men put ashore about ninety minutes ago. They've reported in a couple times since then."

"Very recently?"

The Commander seemed to pale beneath his weathered exterior, realizing the import of Tom's question. "It's been...perhaps...a bit long now."

"Did it slip your mind, Commander?" Tom asked bitterly. "These guys have the blackout pulsator!"

"What can we do, Tom?" asked Bud.

"We can get there in minutes in the jetmarine," replied the young inventor, "and get our distorter as close to the pulsator as possible, to nullify it!" He turned to the Commander. "Forgive my outburst, sir. Please have your driver take us to the Nemo. We'll radio you when we're in place. Oh, and I'll need good maps of the area, both land and undersea!" Frowning but seeing no alternative, the Commander agreed.

Within minutes the Nemo was again cleaving the currents beneath the sea, hugging the coastline of Puerto Rico, her jets throttled up to the maximum.

"Do you think you can find the right place, Tom?" asked Bud.

"Going by what I'm seeing on these charts, I think so," Tom replied, not looking up.

"There's only a very short length of coast—less than half a mile—where the adjacent seabed is deep enough to easily accommodate a full-sized submersible. Four houses front that stretch, and I'd bet we'll be able to tell easily which is the one we're looking for."

Tom's prediction proved to be exactly the case. Arriving at their destination and bringing the Nemo to a halt only a hundred yards out, Tom brought her up to just beneath the surface and raised periscope.

"I see it, Bud!" he cried. "One house has an oversized floating pier in front of it, a pontoon job with a kind of canvas tent in the middle of it. I'm guessing the tent hides a trap door."

"I get it—the sub comes up almost all the way to the surface underneath the pier, and as they rise the conning tower pushes up through the trap door and pokes it open." Bud's voice took on the edge of a growl. "They figured everything—except Tom Swift!"

Tom zoomed in closer with the periscope and uttered a gasp. "There's a man in a Coast Guard uniform lying flat in the driveway. Another on the porch. I think—yes, I see a woman in uniform collapsed by the end of the pier." Tom lowered the periscope and moved to blow ballast and surface the jetmarine. "We've got to get up there and start covering the place with the distorter."

Upon breaking the surface Tom activated the distorter and checked its detectors for incoming signals. "Yep," he said. "A pulsator is in operation. The wave center is in the house, high up—probably the attic."

"Then someone's home," Bud cautioned.

Tom shook his head. "I doubt they'd stay once they knew the cavalry was coming. The one in the attic is probably a reserve pulsator that the Snipers left running to keep their victims unconscious. Now that the distorter is protecting them, they ought to come to as quickly as you did on the day of the pressure test."

At the surface the Nemo floated high enough for Tom and Bud to be able to see over the waves to the beach. In less than a minute, Bud nudged Tom and said, "The Porch Man—he's getting up."

As the other two pulsator victims woozily staggered to their feet, Tom guided the Nemo up to the pontooned pier and threw open the upper hatchway.

"I'm Tom Swift," he called. "My machine is jamming the blackout device. Can you tell me what happened?"

One of the men approached the jetmarine. "I'm Captain Warren. We'd been going door to door for an hour or so when we came here. Fitzgerald—" He indicated the woman Coast Guardsman. "She noticed an oil slick in the water and a scent of diesel fuel. We used the polarized binocs, and it looked like we had a hull just below surface about a half-mile out, outbound. I remember we were going to radio-in and approach the house..."

Warren's voice trailed off.

"You probably tripped an alarm system," Tom explained. "Then someone on the sub turned on the blackout transmitter by remote control—and left it on."

Captain Warren glanced at his watch. "It's hardly been more than forty minutes since we saw the sub—you could still catch up and trail them. Just give me a few minutes to get up to that attic and switch off the machine. I'll rip it apart with my bare hands if I have to!"

The three battered in a side door of the house. Minutes later, Warren yelled from an upstairs window that the pulsator had been disabled. Tom immediately dove down the hatchway and submerged the jetmarine again, bringing it about and heading at high speed in the direction indicated by Captain Warren.

"Think you can pick up the trail, skipper?" Bud asked, holding tight to the railing as Tom up-throttled.

"We know they're making for Trinidad, if Hank was right," Tom replied. "The last sighting was consistent with that direction."

The minutes that followed were tense. The Nemo's powerful sonar system, designed to guide the high-speed craft safely along the seabed, had a long range and an eagle eye. Tom knew that if nothing were picked up soon, it would mean the enemy had changed course after all.

But just as hope was fading, the automatic sonarscope alarm announced acquisition of a large bulk, resonant like metal, cruising along at a depth of twelve fathoms, miles ahead. Bud cheered. "We got 'em now!"

Tom poured on the power, and very soon they could see the enemy sub up ahead. Tom immediately cut all internal and external lights.

"We're invisible to their own sonar, aren't we?" Bud asked. "Because of the Tomasite?"

"That's right," Tom confirmed. "Any echo is weak and distorted, and won't indicate size and shape. We'll approach inside their wake—they'll assume they're getting some bounceback from the temperature differentials."

"So we'll tag them all the way to Trinidad?"

"Nope," Tom responded with determination. "They may have an army there. As far as I'm concerned, their pleasure cruise has just about come to an end!"

CHAPTER 15

TUG-OF-WAR

TOM DREW THE jetmarine closer, until its nose-dome seemed dangerously near the quarry sub's whirling propellers. Then he dropped a dozen feet and upped the hydraulic thrust. The Nemo lunged forward, moving parallel to the much larger craft that was now overhead. The jetmarine cautiously advanced along the length of the sub until they were under her prow. Tom then throttled back slightly and rose just enough that the top of the Nemo was only a few feet below the underhull of the sub.

"You know, Bud, since we're in the neighborhood," Tom remarked, "the polite thing to do is to knock."

Tom twisted the knobs that controlled the gyros, altering the setting that determined the Nemo's longitudinal orientation. Immediately the jetmarine nosed upward like a playful porpoise, banging the tip of its view-dome against the bottom of the sub—once, twice, three times!

"What do you suppose they're thinking?" Tom asked as Bud whooped with glee.

"Probably wondering if they should open the door!" laughed Bud.

Now Tom advanced the position of the jetmarine a bit further and gently brought the Nemo into contact with the sub's hull, making no sound. Then, using both the gyros and a swivel of the hydraulic jet thruster, Tom caused the Nemo's nose to rise slowly, pushing upward against the adversary above. As the force was directed against the very tip of the submarine, the leverage was more than sufficient to lift the sub's prow. Up and up went the prow of the enemy sub!

"Maybe we can force them to surface!" Bud cried excitedly. "Bet they think there's a whale caught under—"

His voice broke off with a startled gasp as the jetmarine seemed to slide forward along the hull above them, hurtling into open water and leaving the sub behind.

"They cut their forwards," said Tom. "Smart. But we're not done yet."

Tom throttled-up and put some distance between the sub and the jetmarine, lest they be rammed. Then he cut the engine and used the supergyros to turn them about until they were coasting along tail-first. The other sub was continuing along its course at moderate speed. Tom couldn't tell whether they had restarted the propellers or were traveling on momentum.

"They still can't see us on sonar," he murmured.

Now he used short, mild bursts of the forward-pointing tail jets to reduce the speed of

the jetmarine. The distance to the other sub decreased second by second. By a maneuver made complicated by the Nemo's reversed orientation, Tom brought the jetmarine toward the surface. Then, when he was opposite the sub's conning tower, he leveled off and closed the gap.

"Tom," said Bud with sudden concern, "you do remember, don't you, that that big sub out there can fire torpedoes?"

Tom's only answer was a grim smile. He brought the nose of the Nemo into contact with the front plating of the conning tower, and slowly fed power into the jets.

With aching gradualness the Nemo's opposing thrust slowed the enemy sub. Like a fish on a line, the sub tried to twist free, flailing with its rudders. But the agile jetmarine was easily able to compensate.

"Tom," said Bud, amazed, "we've both come to a stop! It's an underwater tug-of-war!"

"I think they're at maximum," Tom declared, "but we've got power we haven't used yet!"

He continued to build up the thrust, and suddenly Bud burst out delightedly, "They're going backwards! We can push 'em all the way back to Puerto Rico!"

At that moment the multifrequency sonophone indicator showed an incoming signal. Tom matched frequencies and flipped on the loudspeaker. "Tom Swift!" said a familiar and deadly voice.

"Sid Dansitt!" exclaimed Bud to Tom. "That jet of his got him to Puerto Rico before we did."

Tom plucked a hand mike off the instrument panel. "Well hey there, Sidney!" he said smoothly. "Still having fun?"

"Listen carefully. If you ever—"

"Yeah, yeah, I know the B-movie dialogue by heart," Tom interrupted. "If I want to see Hank Sterling alive, blah blah. Now: put Hank on the line—and he'd better sound nice and healthy, like a guy taking an ocean cruise ought to sound—or in, mmm, thirty seconds we're flipping your sub over and shaking it like a pair of marimbas!"

"Maracas," Bud corrected.

The bold threat had its effect. Within the time prescribed a new voice came over the sonophone. "Tom!"

"Hank!" Tom cried.

"You have some pretty peeved pirates over here," said Hank. "As you might imagine."

"Are they smart pirates—smart enough to know they've been boarded and, er, scuttled?"

There was a lengthy pause. "The man in charge—I don't know his name—says he's willing to return to the dock in Puerto Rico, at the house where I was held. He'll set me down on the pier and let me get out of sight. But you and your sub have to stand off a ways down the coast. And if he sees any 'white hat' types anywhere—oh, the usual ranting, but the gist is that in that case the deal's off."

"Okay, Hank," Tom responded. "In that case we both have to surface before we start, so I can radio the authorities to pull back."

This detail accomplished, the Nemo followed the sub back along its route. Within the

hour Tom and Bud were watching, through powerful binoculars, the enemy sub as it rose beneath the pontoon pier, the rising conning tower lifting a trap door beneath the canvas tent.

"See any white hat types anywhere, Mr. Barclay?" asked Tom.

"Not a one, Mr. Swift," replied Bud.

"Then we've kept our part of the deal. Let's see if Dansitt—ah!" Even as Tom spoke, the boys saw a figure emerge from beneath the canvas and make his way unsteadily down the pier. Tom zoomed in closer. "It's Hank all right—with a beard."

Sterling jumped off the end of the pier and scrambled out of sight. At the same time a burst of bubbles announced that the sub was submerging again prior to making a dash to freedom.

But things didn't go as planned for the Sea Snipers and their leader.

CHAPTER 16

ONE DOWN, ONE TO GO

THE PIRATE SUB had descended just a few feet when something peculiar began to happen. First, the canvas pavilion that had disguised the trap door started to rip and collapse inward, as if it were being pulled apart from beneath. Then the top of the floating pier seemed to develop a sort of bend or crease right in its midsection where the trap door was, a depression that lowered the deck down to the level of the water. And then, alarmingly, the whole pier began to crunch together, twisting its pontoon supports up into the air as the center of the pier was pulled downward into the sea. The pier was submerging along with the submarine!

"Nice," said Bud smugly.

"And nicest of all," added Tom, "they don't realize it yet."

The pier was now going to pieces entirely, its support structure shedding twisted beams and split planks in all directions. A sudden, explosive bloom of water, erupting from the hind end of the submarine, showed that some of the fragments had become entangled in the propellers.

The enemy sub was dead.

"All right, Commander," Tom radioed. "The pirates have struck their colors. Mop 'em up."

"Wilco," came the reply. "And we have Sterling here safe and sound."

It took a good five minutes for the sub to finally blow ballast and give up the fight, another five minutes for its occupants to begin emerging, leaping into the shallow waters and swimming to shore, where they stood upright with raised hands. But the Coast Guard and the local police did not move in until Tom radioed that Dansitt was on the shore.

"I'd love to be there with Sidney," Bud remarked. "Just to welcome him ashore, like an official greeter."

But instead the boys sped by jetmarine to San Juan, where Dansitt and the others were to be booked and jailed. The bedraggled Sea Snipers were conveyed by a police transport bus equipped with barred windows, and their ride to San Juan was long enough for George Dansitt to arrive in his private jet.

At the booking facility Hank Sterling, unshaven and unshowered, greeted Tom and Bud with warm hugs.

"Got a lot to tell you," he said. "But first, tell me how you got the submarine tangled up in the pier."

"It wasn't rocket science," replied Tom. "While I was speaking by radio to Commander Adland explaining my agreement with Dansitt, as Dansitt expected me to do, Bud was on another channel talking to the local ONDAR people about coating the underside of the trap door in the pier with merplastamine-94, an ultra-powerful water-resistant glue used commercially in boat construction. It's widely sold under various trademarks. Bonds to metal as strongly as to wood or plastic."

Hank whistled. "Man! So when the conning tower pushed open the trap door as they surfaced—"

"Like a fly in flypaper!" laughed Bud.

George Dansitt arrived by taxi. Puffing his cigar volcanically, he leaned against the wall of the police facility, nodding at Tom and Bud but not speaking.

Poor guy, thought Tom.

The bus pulled up and the dozen or so gang suspects, handcuffed, were led off the bus slowly, single file and chained together. To his surprise Tom noticed that they all had Asiatic features. Their shrugging reactions to direction from the police officers suggested that they spoke neither English nor Spanish.

Sidney Dansitt filed off the bus about halfway through. Tom watched in fascination, wondering how father and son would react to one another. To his surprise, they gave each other barely a glance as Sidney shuffled by.

Guess reconciliation won't come easy in the Dansitt family, he thought.

Then Tom's muscles tightened. George Dansitt was continuing to look down the line of men exiting the bus.

Which meant he was still expecting his son to appear.

Which meant the young man Tom had been calling Sidney Dansitt wasn't Sidney

Dansitt at all!

Acting on sudden inspiration Tom took a few steps forward and yelled out sharply, "Rosello!"

The handcuffed prisoner, the man Tom and Bud had chased in Kingston only hours before, jerked his head around in response. Then he barked out a laugh.

"Not bad, Tommy! Man oh man." He was led away with the others.

Now George Dansitt approached. "Is there another bus? Where's my son?"

Tom was at a loss for words. "Mr. Dansitt...one of those men impersonated your son. I don't think we've ever actually met Sidney. I didn't know until just now that—"

"Then tell me, Swift, where is my son?" Dansitt demanded.

"I don't know," said Tom simply.

After a frozen moment, Dansitt said, "All right, I know what you're trying to tell me. This won't affect the agreement between us." Without another word he marched off to his waiting taxi.

Bud was stunned, Hank Sterling perplexed.

"What just happened?" asked Hank.

"You mean that guy isn't Dansitt?" Bud exclaimed.

"No," said Tom quietly. "We leapt to a conclusion. We thought he was Sidney Dansitt because he was flying Sidney Dansitt's jet, and because he answered to that name—or at least, didn't correct us."

Bud paused and then said soberly, "Tom, the real Sid Dansitt is dead, isn't he."

"Probably."

"Guys, I don't know what you're talking about," said Hank. "And now that I think about it, I need a shower, a meal, some sleep—"

"And a shave," Bud added.

Tom put a hand on Hank's shoulder. "The Sky Queen is on its way right now to take us, and the jetmarine, back to Shopton. You can clean up and rest on board. Maybe we can talk somewhere over the Carolinas."

It was well after midnight, high in the stratosphere, when Tom and Bud sat down with Hank in the upper deck lounge of the Flying Lab. Hank now looked once again like his old self, and was outfitted with a spare Sky Queen flight suit. They lowered the lounge lamps, and were illuminated mainly by the sea of icily brilliant stars beaming through the floor-to-ceiling windows.

"I remember I had just left my stateroom on the Nantic," began the young engineer, "when I heard a sort of high-pitched whine and started losing my balance. I think I managed to cushion my fall, but then it was lights-out.

"I awoke locked in a small cabin on what I later found was the submarine, the Devilfish. I was looked in on now and then, and brought food at intervals, but no one spoke to me. Turns out the whole crew was Laotian and spoke only their native dialect.

"After what seemed like a couple days, I was marched out of the sub into—you won't believe this, guys—"

"We've been there," said Tom. "It's beneath Spaniel Island, near Cuba."

"As an engineer, I had to appreciate how well the facility had been set up. Anyway, they locked me into a little shed, which was my next prison. Say, did you happen to find my message?"

"Sure did," Bud answered.

"I scratched it out with the end of a loose screw I had found in my cabin on the sub. Gave me something to do besides lose my mind."

"What did they want with you, Hank?" Tom interrupted.

"I was never told outright," he replied, "but I had the impression the man in charge thought he could force me to provide some kind of technical assistance. I'm very much afraid it was my presence on the Nantic that led to its being attacked."

"The man in charge—do you mean Rosello?" asked Tom.

"That punk kid? No!" retorted Hank. "He just turned up when the sub came back to the base. No, I became friendly with one of the Laotians who brought my food. He spoke a little French, and so do I. He had no idea anything illegal was going on; the Laotians had been told I was some kind of international crook. Of course, they wouldn't believe me when I denied it."

"You do have that kind of face, Hank," Bud cracked.

"Still, Nung Thu was as bored as I was, so we talked a little. He said the Laotian in charge, who also ran the sub, got his orders from someone they called 'the English' who lived at 'the Home,' days away by submarine. Nung Thu had never seen this man, and didn't know his name."

"Dr. Herman Chilcote!" Tom declared flatly. "And 'the Home' is probably his home base in Trinidad."

"I don't know," Hank Sterling responded, sipping a hot chocolate. "After the sub left me off, it was gone for about a week. Then, a few days ago I guess, it came back with this Rosello guy on board. They trundled me into my old cabin and we traveled for a day, I'd say, ending up at that house by the pier. As far as I know Rosello never came inside the house—he went off somewhere."

"To Jamaica," Tom observed.

"So how did you send that signal?" asked Bud.

"It wasn't hard. Even you could've managed it, Buddo! I told Nung Thu, who was sort of my special 'keeper,' that I was getting cold at night, and asked if he could find an electric heater."

Tom laughed. "Got it! You shorted the heating coils and used them to send bursts of static, like a telegraph."

"More or less," Hank confirmed. "A few more days and I could have gone F.M.! At any rate, this morning—I guess it's yesterday morning now—Nung Thu told me he had overheard the Laotian captain saying over the phone that they were to leave for Trinidad in the afternoon, as soon as Rosello arrived. I had only a few hours to send my messages before they came to bring me on board the sub again."

Tom and Bud now let Hank relax while they outlined all that had happened since the sinking of the Nantic. "A lot of pieces still don't fit together," Tom concluded. "For

example, the missing uranium slugs from the Vostok. But capturing Rosello counts as 'one down.' That just leaves Dr. Chilcote."

"I know one thing that may have some bearing on the uranium business," Hank said. "When I first arrived at the Spaniel Island site, I recall passing a row of what appeared to be shielded canisters, of the kind used for the transport of radioactive materials. But on my way out, they were gone."

Tom rubbed his chin—his habit while engaged in hard thought. "Which means the sub took them away, probably to Chilcote's little nest. Something tells me the authorities had better get the good doctor into custody—and fast!"

CHAPTER 17

BALTIMORE SEND-OFF

SWIFT ENTERPRISES had never been engulfed in a flurry of activity as furious as that of the two weeks that followed the return of the Sky Queen, bearing the jetmarine in its hangar-hold. All plant resources were temporarily diverted to doing whatever was required to meet George Dansitt's deadline for the completion and public demonstration of the world's first supersonic submarine.

The Nemo, dry-docked in its cradle in the underground hangar, was carefully examined and refurbished after its adventures at sea. A new nose-dome was cast and installed, and cushioning sealants were injected at several points of possible stress in the frame of the craft, inasmuch as the new atomolecular engine differed in its vibrational characteristics from the original pump engine.

The entire propulsion system, stem to stern, had to be removed and rebuilt on different lines. The intake ports at the fore end of the jetmarine were far too small to accommodate the rush of water required by the Gervaise engine. A new cowling was fabricated that paralleled the seam where the dome attached to the main hull, but which extended outward eight inches further on the top and sides, and a full four feet further beneath the dome, creating an intake "scoop" that completely encircled the front of the craft.

But the various plant departments involved in the jetmarine redesign soon reported to Tom that more fundamental changes would be needed.

"We'll have to junk the whole rudder-and-fins setup," declared Hank Sterling as he and

Tom pored over the results of tests in the high-velocity hydrodynamic tunnel—the aquatic equivalent of a wind tunnel.

"It's just like when the first supersonic jets were developed," Tom commented. "Things that work well at subsonic speeds have paradoxical effects on the other side of the sound barrier."

Tom and Hank tossed around a few ideas—approaches that would have sounded far-fetched even days before. Finally Tom began to sketch out a new concept on an electronic flatscreen, which fed his drawing directly into a design program. He traced a cigar shape, representing the streamlined jetmarine. Then he drew a thick, flatsided ring around the tail of the Nemo.

"You've lost me, skipper," said Hank, wearily rubbing his eyes. "Now you've got the back end of the cigar going through the hole in a doughnut. Where does that get us?"

"Maybe everywhere!" grinned the young inventor. "Imagine that this ring, or 'torus,' is made of overlapping curved plates attached to a strong internal framework. By using a series of very small, very lightweight electric motors—like the Fat Man suit's 'arm muscles'—we can shift the forward-facing 'mouth' of the torus side to side, or up and down."

"In other words you're not swiveling the whole thing as a unit, but actually altering its shape."

"Exactly," Tom confirmed. "Think of it as a 360-degree rudder!"

Sterling promised to flesh out the details of Tom's concept and then have Arv Hanson produce a small model for testing within twenty-four hours. When the model was tested in the tunnel, it showed that the fundamental problem of directing the jetmarine at transonic speeds had been overcome.

More difficult were the problems mentioned by Bud and Sandy in Jamaica—the related problems of friction and aquatic sonic booms. One afternoon, six days before the planned launch of the craft, Bud found Tom in his laboratory leaning over an oversized tub of water, its contents in frothy motion.

"Now that's a healthy development!" Bud remarked. When Tom turned around quizzically, he added: "I always thought this lab could use a good jacuzzi for geniuses and their pals to relax in!"

"Dreamer!" Tom retorted. "I'm just testing out a new way to fight underwater friction." Bud nodded, plopping down on a nearby stool. "Sort of a super-lubricant for supersonic subs."

"Not quite, flyboy!" laughed Tom. "Now listen up. There's longitudinal friction, like when you rub your hand along the surface of a table. We deal with that by basic streamlining."

"Right."

"But there's a much bigger problem called dynamic pressure, represented by 'Q' in engineering lingo. That kind of friction is actually the back-pressure developed by the fluid medium in front of the craft."

"I understand," said Bud. "The air or water in front gets piled-up on itself because it

can't get out of the way fast enough. Jets have to punch through it when they break Mach 1."

"And in the process, a shockwave is produced, which is heard as a sonic boom." Tom held up a long, flatsided rod which somewhat resembled the blade of a broadsword.

"Now imagine something like this sticking out in front of the jetmarine, attached to her nose. It punches into that 'piled-up water' in front. As water moves along the length of the device due to the forward motion of the sub, the water is given an electromagnetic shove sideways, so that it gains some lateral momentum and is able to slip around the hull more easily."

Bud gave a grunt of self-pleased satisfaction. "I get it. You're draining away that Q-pressure, sort of like opening a hole in the water for the jetmarine to stick her nose into." "It's not that dramatic, but that's the basic idea," Tom said. "It's really just an adaptation of the Flying Lab's aeolivanes to traveling underwater—same basic principle. I call it the hydraulivane."

"Not bad, pal. I just hope it doesn't get the Nemo mistaken for a swordfish!"

On a Monday, with three days to go, the new version of the jetmarine was rolled into the sunlight on the way to the high-pressure tank in the test complex.

"She sure is shined up bright!" exclaimed Chow Winkler admiringly.

"You're not going to 'brand' anything, Chow?" teased Bud Barclay.

"Wa-al brand my pickled piglegs," snorted the cook in response, "yuh'd think that's all I ever said!"

The pressure test was satisfactory in all respects, and at the end of the day Tom was able to shake hands with his father and assure him that they were on schedule.

"Then there's no reason not to tell Mr. Dansitt to go ahead and fly in his two groups of investors," said Damon Swift proudly. "Incidentally, we received a pair of McIntosh and Dansitt t-shirts in the mail. Would you and Bud care to—?"

Tom's groan cut off the rest of the sentence. "Dad—please."

"Didn't think so," chuckled the elder Swift.

The day prior to the event, the Sky Queen ferried the jetmarine and her crew to the launch site Mr. Dansitt had designated, a well-equipped and well-policed wharf not far from the Seagirt Marine Terminal of Baltimore. The Nemo was drydocked out of sight and an elaborate security system put in place.

"Chilcote is still out there," explained Tom to his family, who were present for the following day's send-off. "We don't know what he or his minions have been up to lately."

"But Tom, why can't they arrest him in Trinidad?" asked Tom's mother.

"They would if they could, Mom," he replied. "But neither Rosello nor any of the crew of the sub has been willing to talk. In fact, that's probably why Chilcote went to the trouble of recruiting and training poor Laotian peasants to run the sub—since they don't speak the local languages, they wouldn't be able to repeat anything they might happen to overhear."

"That Dansitt—I mean, Rosello—what's his stake in all this?" Sandy asked.

"For one thing, if he had some involvement in murdering Sidney Dansitt he has every reason to prefer the waters nice and muddy."

"I can't help being a little afraid that someone might try using that blackout machine on you and Bud, or even on the spectators," said Mrs. Swift.

"You needn't worry, Anne," answered Tom's father, taking her hand. "Besides the distorter device on the jetmarine, we've now built several more. This whole area will be well-protected, and I'm sure Chilcote is smart enough to know that."

The next day dawned overcast with a trace of fog in the air, but by midmorning the sun had burned through and the viewing stands set up on the wharf were filling with excited crowds. In one reserved area sat the Mayor of Baltimore and various other officials; in another, under a gaudy corporate banner, Dansitt's group of investors were gathered. George Dansitt arrived, expensively dressed and waving his cigar. If he were in mourning for the presumed loss of his son, he didn't show it. But the crowd knew of the recent events from the news reports, and greeted him warmly.

Then the spectators from Shopton took their places. Chow, resplendent under his ten-gallon hat, was there, as were Arvid Hanson, Wesley Beale, Harlan Ames and his daughter, the Sterlings, and many others.

The crowds applauded anew as the Swift family arrived with waves and modest bows. They were joined by the Barclays, Bud's parents, who had flown in from San Francisco, and by Bashalli Prandit, dark and radiant.

Finally Tom and Bud came out onto the wharf, dressed simply for their historic voyage undersea. The crowd rose to its feet and roared a greeting as a brass band played an inspiring march that could barely be heard through the din. The boys waved sheepishly—which stirred the crowd to a greater frenzy—and then stood at attention at the edge of the wharf while the band played the national anthem and the jetmarine was pulled into view by cables.

"She's beautiful, Tom!" whispered Bud. "Or have I already said that?"

The refurbished jetmarine looked sleek and futuristic with her forward dome gleaming in the sun and her polished hull, painted a deep gray-green, catching spiked reflections from the scalloped surface of the bay.

With some final waves and kisses blown in several directions, Tom and Bud entered the hatchway of the Nemo and clanked it shut. After a check of the instruments and the air supply, Tom radioed Mr. Dansitt that he was ready and would be starting precisely at the time agreed upon—noon on the dot, by synchronized watches.

"Good luck and safe crossing Tom, Bud. And Tom?"

"Yes sir?"

"For what it might be worth—this is for Sidney."

Activating the atomolecular engines at their lowest possible setting, Tom gently eased the Nemo away from the wharf and out into the bay. Then, playing the slight forward thrust against the thrust-reversers, he brought the craft to a full stop and submerged.

"See any leaks, Bud?" he asked jokingly.

"Not so far," replied the dark-haired submariner, flashing an excited grin. "But I brought

along my galoshes just in case."

The seconds ticked away. Then Tom gripped the throttle and said, simply:
"Time!"

CHAPTER 18

ACROSS THE SEA TRANSONIC

THE JETMARINE responded to Tom's touch like a trained palomino. The low, organ-like drone of the engines, barely audible, spiked upward to something more like a violin trill. The Nemo underwent a thrilling acceleration, arrowing out into Chesapeake Bay and immediately veering south. This was the first true undersea test of the new rudderring, and it worked like a charm. Tom felt that his control of the sub was total.

As planned, the trip down the bay was a subsonic one. Even so, after less than a minute Tom was able to make a startling announcement. "Bud, we're moving faster than anything has ever moved under water—and that includes the records we set two weeks ago!"

For once, Bud Barclay was speechless.

Consulting the computerized positioning system, Tom periodically announced the geographic landmarks they were passing. Curtis Point, Point Lookout, Tangier Island—all fell before the lightning power of the hurtling super-sub.

Before Bud had time to put together a mental map of where they must be, he felt the jetmarine veering sharply to port. "What's up, Tom?" he asked. "Why are we turning?" Tom smiled broadly. "So we don't crash into Virginia Beach, that's why! We're leaving the bay and heading east, matey, out into the wild Atlantic! If the water were clearer, we could see Cape Charles." He made a quick check of their course, then turned and said to Bud, "Ready to make history?"

Bud nodded, wide-eyed.

Tom relinquished control to the navigational computer. The boys watched as the readout screen counted down to zero. They braced themselves.

Bud recalled later that when the atomolecular engine up-throttled into its main mode, it was like being shot out of a cannon. He and Tom were jolted back into their padded safety straps by the sudden, awesome rush of forces. For a moment, before the hydraulivane attained its maximum efficiency, the tranquil sea became a roaring place.

The sound of the new engine was no longer a tone so much as a hiss.

Faster, faster they sped, minute following upon minute. Suddenly the Nemo began to vibrate in sharp, thudding jolts.

"T-Tom!" Bud gasped. "What is it?"

Tom did not answer but clenched his muscles against the forces of acceleration, leaning toward the instrument panel suspended in front of him. He offline the navigation computer and resumed manual control of the jetmarine, simultaneously twisting two large dials on the panel. The sub shimmied for a moment like an old car, then clicked back into smooth acceleration at a more measured pace.

"Subocean currents along the continental drop-off," Tom explained calmly. "Sort of like skidding on a wet highway."

"Yeah—except at several hundred miles per hour!" observed Bud. Suddenly the import of Tom's remark struck the youthful pilot. "Skipper, are you saying we're already beyond the continental shelf?"

Tom nodded proudly. "We're passing over the downslope now. Take a look."

Tom switched on the jetmarine's underwater lamp, and the two submariners gazed down through the view-dome. They could just make out the slope that marked the extremity of the continental shelf falling away far below into the dim blue shadow of the deep ocean.

"Wish we could see it a little better," commented Bud.

"We can," replied Tom. He threw another switch on the instrument panel and made a small adjustment. Immediately a vast new scene was spread out in all directions beneath the Nemo! The predominant colors were no longer translucent blues and greens, but the normal hues of daylight on the surface.

Bud was struck with awe akin to fear. "This is—incredible! It's like we're flying over another planet in a rocket!"

Tom was silent for a moment, taking in this vista which no human being had ever seen. The jetmarine was now gliding, or soaring, far above the floor of the true ocean, relatively smooth in itself yet forested by colorful deepwater vegetation and inhabited by layer upon layer of darting sea creatures.

"The Hatteras Plain," commented Tom after a moment, "well north of where we were before."

"That new lamp is more powerful than the Swift Searchlight," Bud observed. "Must be quite a dazzling sight to the fish."

Tom shook his head. "No, it's just a sort of hazy circle, if they see anything at all. On this setting we're using a special combination of pulsed frequencies that penetrate water easily but are invisible to the naked eye."

"But we see it."

"No, pal, we don't," replied the young inventor. "The dome has been lined with a thin film that 're-mixes' the reflected rays from the illuminator, which I call an aqualamp.

The result is light in our ordinary optical range—but it's only inside the jetmarine."

Bud indicated that he understood. "I guess it was either that, or distribute eyeshades to the fish."

The Nemo had been accelerating for some time now, once again under the direction of its automatic program. Now Tom called Bud's attention to the speed indicator. "We're almost there," he said. "Just another couple percent." Tom's voice was confident, but Bud knew that the upcoming milestone was fraught with danger.

What would happen when the jetmarine thrust itself past Mach 1—an astonishing 760 miles per hour?

Bud recalled from aviation history that the early jet pioneers had been unprepared for some of the strange phenomena that awaited at the borders of the transonic.

Tom ticked off the increasing speeds, an edge to his voice, as Bud waited silently.

"Here goes!" Tom cried. "And—we're there!"

"Over the sound barrier under the sea!" Bud cheered, relieved to feel no change in the jetmarine's operation.

After some joking banter, Tom said, "Actually, down here 760 is more a symbolic barrier than a real one."

"How come?"

"Well," Tom responded, "don't forget, we're breaking Mach 1 as it is in air. In water sound travels quite a bit faster, and the Mach numbers are higher."

"How much faster?"

"Almost five times, pal!"

Bud gulped. "Let's be glad old Mr. Dansitt was willing to settle for a symbolic victory!" The Nemo was still accelerating, for Tom was determined to probe the limits of the Gervaise engine. He carefully monitored the emissions profile of his atomolecular decoupler and the drain on the Veranium atomic pile. At one point he deliberately downpowered the hydraulivane by a fraction of a percent. The sub reacted as if Tom had slammed on the brakes, almost throwing her passengers off their feet.

"I won't try that again!" said Tom wryly.

The jetmarine's appointed destination was a small modern dock near the coastal town of Sagres, Portugal, which the McIntosh and Dansitt company had rented for the demonstration. Although many factors were unknown, Tom had estimated that the Atlantic crossing would take a shade less than six hours total. But only the clock and the computer bothered to keep track of the time, Tom and Bud being fascinated by the varied subscape rolling along many fathoms beneath. Leaving the Hatteras Plain behind them they traversed the southern slopes of Bermuda and surmounted the Bermuda Rise; then onward to the Sohm Plain. At one point Bud asked Tom, "What's that way off there?" He indicated a dark silhouette far to the north, at the very edge of visibility. Tom consulted his charts. "It's a formation called the Corner Seamounts," he said.

"Which means we're making great time!"

Near the halfway point of the voyage the aquatic terrain below became increasingly craggy and mountainous. The seabed had an odd, puckered appearance and was covered with long, miles-wide grooves, parallel valleys scratched in the floor of the Atlantic, running east to west.

"More of those river valleys?" Bud inquired.

"Not this time," Tom responded. "Those are the skidmarks left on the ocean floor by the North American continent as it peeled out from its date with Europe a few hundred million years ago. It's called continental drift—the Americas to the west, Europe and Africa to the east."

Twenty minutes later Tom called Bud's attention to a mammoth system of connected peaks, resembling the folds in a blanket, which the Nemo was beginning to cross. The long folds, and the slotlike valleys which separated them, ran on out of sight to the north and south. "The Mid-Atlantic Ridge!" Tom announced with awe. "No one has ever seen it the way we're seeing it."

They were in the second half of the voyage, over the jumbled Azores Fracture Zone, when Bud had a notion to amuse himself by composing a sea chantey.

"Feel free to step outside if you don't care to listen," he joked.

Across the sea transonic go

To meet the Mer-King's daughter!

You'll ne'er meet maiden fair, but Oh!

You'll meet a ton of water!

"The 'sea transonic'?" teased Tom.

"Sure, skipper!" Bud exclaimed. "We conquered it—we get to name it!"

As the hours passed, the boys fell silent, overwhelmed by their experience. It was peculiar, knowing that they were jetting along far faster than any aquanaut in all history, yet feeling almost motionless, suspended high in a watery void with nothing nearby against which to measure their progress, the constant hiss of the atomolecular engines a backdrop to their wonder.

"Why don't we see any fish going by the dome?" Bud asked at one point.

"Same reason you can't see a bullet in flight," Tom explained. "We're going way too fast for our eyeballs to compensate!"

"Lucky they're not splattered all over our windshield."

"The hydraulivane takes care of that."

"Oh really?" remarked Bud. "Maybe you could invent one for my car!"

Bud yawned and stretched, taking a glance at his watch in the process. More than an hour to go. For all the novelty and thrill of their crossing, human nature had reasserted itself—the fantastic was becoming routine.

Tom knew his best friend well enough to pick up on his attitude, and he couldn't help but be amused. He caught Bud's eye and gave a wink.

"Don't mind me," responded Bud. "I'm just ready for our celebratory dinner, courtesy of Mr. Dansitt."

"Then I've got some news you'll be interested in," said Tom mysteriously.

"What kind of news?" asked Bud. "I thought we weren't in communication with surface mortals down here!"

"Oh, we're not," Tom confirmed. "This kind of news came from the navigational computer. I've known it for an hour now—but I guess I like surprises as much as you like sea chanteys!"

"Come on, give!" demanded Tom's pal. "What's the deal?"

"Just this. We make port in just eight minutes!"

Bud was astonished. "I thought we were at least an hour away!"

"We would be—if we had stopped at air-Mach 1. But we overshot the mark by quite a bit. Bud, we're traveling at almost one thousand miles per hour!"

"Ho—ho—holy—" Bud sputtered, concluding with: "Brand my barracudas!"

"In fact, I think we'd better start slowing down," Tom continued, "or we'll end up sticking like a sea dart in the side of the Rock of Gibraltar!"

At the Sagres dock it was now the middle of the night. The jetmarine was not expected for another hour, but fortunately most of the potential investors had already assembled, along with a small crowd of curious townspeople. On a bluff some distance back from the shoreline dozens of cars were parked, young people finding the event a sufficient reason to gather for a good time. Searchlights played across the rolling waves, ready for the first glimpse of the American sub.

But it was a television reporter who electrified the crowds by shouting, in Portuguese, "There! There!"

The Nemo, wet and sparkling, was crashing through the surf!

Immediately the dock was ablaze with light—flickering, flashing, swiveling light from all manner of cameras; while on the bluff above, the cheering onlookers switched on their headlights.

The jetmarine slid gently into the special docking rails that had been set up to receive her, and bumped to a stop. Tom and Bud waved at the frenzied crowd through the nose-dome.

An official from the McIntosh and Dansitt company stepped up to a microphone and made an announcement in English which was then repeated by others in several languages. "Ladies and Gentlemen, I have the high honor of declaring that the breadth of the Atlantic Ocean, from Baltimore, Maryland, United States of America, to Sagres, Portugal, has been crossed by the submarine Nemo in five hours, three minutes, forty-four seconds, by synchronized timepiece. The approximate average speed of the underwater crossing is calculated to be 896 miles per hour, or 779 knots—exceeding the standard speed of sound by 13 percent!"

The wild cheers that followed were redoubled as the handsome young aquanauts from America exited their craft, acknowledging the crowds with grinning modesty.

Bud elbowed Tom and whispered—loudly, "Genius boy, you've given me the greatest experience of my life, and I'm not even dead yet!"

Few noticed a uniformed man making his way through the spectators, a cellphone in his hand. He forced his way to Tom's side and handed him the phone. "Senhor Swift? Es importante!" Tom took the phone, expecting to hear the voice of his father, or perhaps Mr. Dansitt. In the midst of the tumult it was hard to make out anything at first, and Tom asked the caller to repeat his first words.

"This is Admiral Krevitt, Tom. Can you hear me?"

"Yes, Admiral," Tom replied.

"You must return to your submarine immediately. Put out to sea, but do not submerge. This is an emergency situation! Contact me from the sub within two minutes! I repeat, this is an emergency situation!"

CHAPTER 19

THE TERROR TORPEDO

"Yes sir! Wilco!" said Tom, his face turning pale. He handed off the cellphone and told Bud to follow him back into the Nemo. Seeing the look on Tom's face, Bud complied without a word.

They used reverse thrust to back the jetmarine out of the dock, to the puzzlement of those on the shore. Then, standing out at one hundred yards, Tom radioed Admiral Krevitt at ONDAR headquarters.

"Tom, I'm here with Dr. Nemastov and—well, doesn't matter. About an hour ago, a combined force raided the compound owned by Herman Chilcote in Trinidad. Chilcote and his staff were arrested; there were no casualties.

"As Chilcote was taken into custody, he said to the man in charge, 'Be sure to tell Rosello I said, Neptune wins!'. We passed along the message immediately, thank God. Rosello started laughing and explained the meaning.

"Tom, Rosello claims that as we broke into Chilcote's compound, he launched some sort of super-torpedo, like an underwater ICBM, toward the United States! Do you understand?"

"I do, sir," Tom responded, trying to maintain an icy calm. "What do we know about it?"

"Two things. First, according to Rosello, it is to strike a designated target on our Atlantic coast at precisely 10 PM our time. Rosello claims not to know the target. Second, Rosello claims the torpedo is carrying a small nuclear warhead!"

"No!" cried Tom in horror.

"Dr. Nemastov thinks the scenario is plausible, having gone over your report on the uranium slugs that seemed to be missing from the Vostok. The bomb wouldn't be very powerful, but could be especially 'dirty' due to the way it's being delivered. Going off at the shoreline, it would create clouds of radioactive steam and fine particulates that would endanger the whole eastern seaboard!"

"And that's all we know?"

"Absolutely all," the Admirable replied. "Of course, we're interrogating everyone we have in custody, vigorously. And we're trying to make sense of documents and computer files seized from Chilcote's lab. But it's clear he didn't want the pieces put together until it was too late."

"I understand the situation," said Tom. "and I know what you are asking us to do. Even here on the other side of the Atlantic, the jetmarine is the only thing we have with the speed and mobility to have a chance of intercepting the undersea missile."

"Exactly," Krevitt agreed. "Of course, even you won't be able to do anything unless we can identify the target. But if, somehow, we do—then we need you here!"

Tom thought for a second. "Admiral, transmit everything you have—everything!—to the Nemo via compression-encoded signal. I'll give you the details. That will put it in the onboard computer here, so that I can study it en route. As soon as I radio you that we've received the data, we'll submerge and make for our Key West facility at absolute maximum speed. We'll surface hourly to receive any updates from you."

"We have less than five hours," cautioned Admiral Krevitt. "Can you do it?"

"Yes!" replied the young inventor simply. Yes, because we have to! he thought. The jetmarine's recrossing of the Atlantic was nothing like the first voyage. Bud was silent, alone with his thoughts, not wanting to distract his friend. Tom was preoccupied with the scraps of data Admiral Krevitt had sent—mostly various hasty analyses by government experts, as well as some observations by Dr. Nemastov.

But the files downloaded directly from Chilcote's computers were the most frustrating of all.

"He scrambled them," Tom muttered in Bud's direction.

"Tom Swift, if anybody on earth can unscramble a scrambled egg, it's you!" said the dark-haired submariner. Tom smiled back, but it was a smile of resignation and near-defeat. Still, the sight of Bud Barclay's trusting face gave Tom new energy, energy enough to rethink his approach to recovering the data.

It's all there, Tom thought. There's got to be a way to undo what has been done.

Meanwhile the Nemo had been pushed, screaming, to its highest speed, well beyond what had seemed the safety limit earlier that day. They had already broken the day's speed record by twenty percent!

As the jetmarine again crossed the Mid-Atlantic Ridge, somewhat south of its previous course, Tom startled Bud out of his reverie with a sudden war-cry of triumph. "Broke it!" he cried.

"Broke what?" demanded Bud. "The computer?"

"Chilcote's scrambler routine! It wasn't based on a true randomization matrix, but on pseudo-random sequences in the decimal expansion of Pi!"

"I should've thought of that myself," remarked Bud dubiously. "So what does it say, skipper?"

Tom manipulated the computer inputs. "Here comes something," he murmured as Bud stood behind him. An image took shape on the screen.

"Blueprints!" Bud exclaimed. "Is it the super-torpedo?"

Tom studied the lines of the image for a moment, then shook his head. "No. This is much too small and slow. I'd say it's the torpedo he fired toward the jetmarine when she was at SONRC. Let's keep going."

After what appeared to be a number of working sketches, another complete blueprint flashed into view on the monitor. "That's more like it!" cried Tom.

This blueprint, carefully detailed and marked FINAL—IMPLEMENTATION

APPROVED HC, showed a long, slender cylinder that bulged in the front like the head of a cobra, with narrow v-swept fins at the tail.

"It really does look like a missile," Bud observed. "What makes it go?"

Tom studied the blueprint, brow furrowed in concentration. "This three-sided vane extending from the stern is really a kind of propeller, rotating on an offcenter axis at a tremendous rate. It's very ingenious—no wonder the torpedo can travel from Trinidad to the U.S. coastline in a matter of hours! Not as fast as the jetmarine, though."

Bud pointed at the forward bulge. "Is that our bomb?"

"Sure is," confirmed Tom. "And it's not contact activated or triggered by sonar-returns..."

"What then?"

Tom looked up grimly. "A straightforward timing mechanism. It's going off at 10 no matter what!"

He quickly paged through the remaining data, which consisted of notes in text form. Hope surged as Tom came to the heading TARGET INPUT followed by a string of numbers.

"Latitude and longitude?" suggested Bud.

"Doesn't look like it," Tom responded slowly. "It must be the guidance settings for the torpedo's computer. We don't know how to decipher it."

Tom summoned up a geographical chart on the monitor, showing the southeastern coastline of the United States.

"Okay, genius boy, think like a madman," Bud urged his friend. "Why's Chilcote doing this?"

"Because...his superiors at ONDAR didn't believe in his work. He was about to be fired, maybe jailed."

"But we know now his work was valid, right?"

"Yes," said Tom. "So he feels he was treated unjustly—backstabbed. And—" Tom's brow furrowed. "He wants revenge, against ONDAR, against the American scientific community, the image of American science..."

Bud nodded vigorously. "So this is his 'bolt of vengeance.' What was it he said?

Neptune wins! Isn't there a place called Neptune Beach in Florida?"

"Yes," replied Tom. "Near Jacksonville. But I can't think of any particular connection to science or ONDAR. But—wait a second." Tom had the computer highlight, on the map, all geographic features that included the word "Neptune." One of them was miles off the eastern coast of Florida—an undersea feature.

Tom read it aloud. "Neptune Chasma. It's a narrow depression, like a channel, in the

continental shelf. Runs for miles. It could be used as a route to keep the torpedo in deep water and avoid detection." He followed the channel along, then continued in the same heading beyond its end until his finger crossed the coast—and two printed words. The boys gasped as one.

Cape Canaveral!

Tom immediately brought the Nemo to the surface, slowing to a pace safe enough to meet the waves without losing stability. He then contacted Admiral Krevitt.

"Canaveral was one of the possibilities we had identified," agreed the Admiral. "We have no better idea at this point. Do you have a plan, Tom?"

They talked for several minutes. Then the jetmarine submerged and resumed its headlong flight, at maximum acceleration.

Now time became their most immediate enemy. They could calculate the approximate location of the torpedo, and knew when it was set to strike its target. Although the weapon had had a considerable head start, the Nemo was much the faster of the two. The gap was closing rapidly. Yet it would still be a close thing.

"We don't have much of a margin," said Tom. "We'd be relying on dumb luck completely—"

"If not for your idea!" finished Bud.

Tom's idea was to use the jetmarine's sonarscope equipment, which normally plotted a safe course for the high-speed craft, as a hypersensitive ear with which to detect the characteristic frequencies of the torpedo's unique rotor-prop. Weak as these sonic pulses might be, Tom was confident that he could enhance them to such a degree that he would be able to triangulate the position of the torpedo in its course. Meanwhile, Bud would have to pilot the jetmarine hands-on—a nerve-wracking task at their mach-plus rate of travel.

"You can do it, pal," Tom reassured him. "We'll be well above the bottom. Just watch out for whales!"

"Let them watch out for me!" Bud joked, a little breathless.

Their banter shrouded the one fact they were afraid to discuss aloud. Cape Canaveral was slated to be struck in forty-seven minutes!

A small screen on the instrument panel showed the deadly countdown in neon orange.
46...45...44...

Suddenly a small light flashed green next to the sonarscope readout panel. "We've got something!" Tom said.

39...38...37...

"It's the torpedo—definitely!" Tom declared.

"Let's go get 'em!" Bud exclaimed with more bravado than he actually felt.

Using the computer's calculations based upon the sonarscope inputs, Tom gave direction to Bud as to how to guide the Nemo.

31...30...29...

"We're closing in now," said Tom. He switched on the long-range aqualamp. "I think I see it up ahead."

Tom slightly reduced the hydraulivane's action, which had the anticipated braking effect. "That's it," Bud declared softly. Neither of them was in the mood for elation. Not only were their lives at stake, but the lives of thousands.

The jetmarine was following the wake of the torpedo, paralleling it from slightly above. The Nemo drew closer, and what had been at first just a small dark bead in the distance became the evil mechanism of the blueprint. They had hunted it down. The challenge now: to kill it!

"Tom," said Bud, his voice hushed but tense, "what if the torpedo has some kind of sonar alarm? Maybe we'll set off the bomb by getting too close."

"We're invisible to sonar. Tomasite, remember?"

"Oh—right, skipper."

23 minutes remained. And even as Bud registered this fact, the indicator changed to 22. They now put into operation the rest of Tom's plan. With a burst of speed, the jetmarine agilely maneuvered close to the hurtling torpedo, station-keeping yards above it, their noses almost even.

"Hold on!" shouted Tom.

He cut all power to the atomolecular engines, which instantly fell silent. Then he gyroed the Nemo into a side-roll, as if its long axis were a spindle. This was the moment of greatest danger, carefully simulated by computer but not tried in real life.

It's one thing to test an invention in the abstract and another to foresee actual experience. Dad, Tom thought, you're so right!

As Tom threw the jetmarine into its sideways somersault he pressed, at virtually the same instant, one key on his keyboard. An entire bank of indicator lights flooded red. Tom and Bud fought to hold on to the grab-rails inside the nose-dome as the Nemo fought to avoid spinning out of control in a deadly spiral—the very image that had floated into Tom's mind two weeks before, inside the sunken Vostok.

And now it was all too terrifyingly real!

CHAPTER 20

TURNABOUT TALE

"OBVIOUSLY YOU LIVED to tell the tale," said Rita Scheering through a thin curtain of smoke. "Unless I'm talking to a ghost."

"Bud and I left the ghosts behind on the Vostok," replied Tom Swift, easing back in the comfortable chair that faced the table where the journalist was taking notes.

Six days having passed since the Nemo returned Tom and Bud to the mainland, Tom had decided to fulfill his promise to give Miss Scheering an exclusive interview for Backgrounder magazine. Bud had driven him into Manhattan on the promise that he could duck the interview and spend the time shopping nearby.

"Call me when it's over!" Bud grinned, dropping Tom off.

Tom and the journalist sat in her tony apartment, three flights up; and when the basic tale had been told, Tom went back again to fill in the gaps.

"Now tell me about this rolling maneuver you made—which strikes me as a little 'over the top,' you should pardon the pun." Rita positioned her pen expectantly.

Tom smiled, appreciating the pun. "There was no other way to prevent the device from going off—we couldn't disarm it, obviously, or blow it out of the water. So we had to use EMP. Know what that means?"

"No."

"Electro-Magnetic Pulse. A nuclear blast produces electromagnetic waves across many frequencies as a byproduct, and the waves are so powerful that they can knock out electrical circuits by induction."

"But you didn't have a nuclear bomb with you on the Nemo," Rita observed.

"No, but the jetmarine did have an electromagnetic transmitter—namely, the distorter."

"That's the anti-blackout device?"

"That's it," Tom replied. "I calculated that, by diverting the ship's entire power load into the distorter's output generator, the burst would be sufficient to totally disrupt the circuitry in the nose of the torpedo, any and all of it. But there were a couple hitches. As everyone knows, water is an electrical conductor, which means that electromagnetic waves 'short-out,' so to speak—they self-cancel and are damped down almost to nothing in a very short distance."

Rita made a note and nodded. "So you had to bring your transmitter right up close to the torpedo's nose section. Is that it?"

"Exactly. Which brings up problem number two: the plans showed that the torpedo's electronics were well-shielded, with just one weak point—where the antenna leads poked through, on the top of the hull. And since our transmitter pod was located at the top of the jetmarine's hull as well, we had to flip over and time the EMP burst precisely. The danger was that we might fry our own power system, which would prevent the gyros from restabilizing the sub. But we were lucky."

"Very!" She puffed on her cigarette and gave the young inventor a tight smile. "So what happened to the torpedo?"

"Its systems failed completely, propulsion included. It ended up half-buried in the sand. Later on we raised it into the Flying Lab with the mega-mag—that's the latest version of the old Swift giant magnet—and passed it on to the ONDAR people to study. I..."

Tom's voice trailed off. After a moment he put a hand up to his neck as if choking. He coughed.

"Tom?"

He pointed at the endtable next to him. An ashtray was crowded with cigarette butts.

"Sorry," said Rita, moving the ashtray to her side of the room. "I'm not used to company, and I'm way too used to my own bad habits."

Tom looked at her, rubbing his neck, catching his breath. "Thanks, that's better."

"Now then," Rita said, resuming the interview. "What's the big picture here? Who is this Rosello? What about Sidney Dansitt?"

There was a long pause, as if the young inventor were trying to assemble all the pieces.

"We've managed to figure out some of the high points. Start with this guy Donny Rosello. He spent most of his high school years having run-ins with the police."

"Sounds like a bad boy."

"I'd call him unhinged. Somehow Dr. Chilcote ran across him and decided to use him to further his plot—to revenge himself by perfecting the blackout technology the government thought bogus. He planted Rosello in the rooming house where Sid Dansitt was staying in his first year at Grandyke University. The landlady says they became close—obviously Rosello was studying Dansitt, who was known to have money from his family in Baltimore."

"It was about money, then?"

"What isn't?" said Tom pointedly, with a wry twitch at the corners of his mouth.

"Chilcote needed money for several purposes—perfecting his device, purchasing his private base, paying his employees. Rosello wanted money for its own sake. What they pulled off was, basically, a perfect case of identity theft. Donny Rosello becomes Sidney Dansitt after getting rid of the original, which gives him access to Sid's credit cards, bank accounts, personal jet, and maybe, down the road, money wired by Mom and Dad to bail 'Sid' out of jail."

"I can figure it," said Rita. "He has to stay enrolled at Grandyke just in case Dad calls the Dean for a report. But he switches graduate programs and advisers—Grandyke's a big school, and no one notices that the man called 'Sid Dansitt' has a different face."

"And he moved out of the rooming house, of course. He deliberately got himself in a little trouble with the law, because he wanted to get his fingerprints into the system under his new name."

"Aha!" Rita tapped her pen against her forehead. "When he was in trouble before, he was a juvenile! The records were sealed, and his prints were never entered." She made a note. "And then he went off with the Sea Snipers and started raiding the ships."

Tom stroked the end of his chin thoughtfully, silent for a moment. "No. Harlan Ames tells me Rosello was seen in town at the time of the raids, including the attack on the Nantic. And his jet didn't leave the airport, either."

"Chilcote must not have needed his help."

"Perhaps not," agreed Tom. "Besides, Rosello had some sort of mission involving Swift Enterprises. Chilcote must have guessed that ONDAR would turn to us to develop a

counter-weapon. But why would he deliberately provoke me the way he did..." Tom's gaze became distant.

"As a reporter, I was always taught: the outcome is the reason why."

"All right," said the young inventor, "then what was the outcome? We thought he was Dansitt ... Bud and I chased him ... He palmed off the phony memory cartridge..."

"And then what?" asked Miss Scheering. "Follow the trail. What happened because you had that cartridge?"

"I found out that the gang knew about our plans for moving the jetmarine, which meant they were spying on us in some way, or—"

"Or?"

"Or somehow monitoring our internal communications without actually being present! But we use a special 'double-blind' encryption system for all internal telephone or intercom contacts, including the modem you and I spoke over."

"Absolutely all?"

"No!" cried Tom abruptly. "The televoc signals are not encrypted!" He slumped back into the chair, silent again, rubbing his chin. "It's our internal person-to-person communication system," he explained. "But we thought it secure—the maximum range, unit to unit, is just three miles. Besides, the perimeter fence has a signal jammer. No one outside could tune in."

"You give up much too soon," Rita commented with a patronizing smile. "Why couldn't someone have planted their own relay device somewhere inside your fence?"

"They could have," Tom conceded. "But then we're back to suspecting an Enterprises employee of betraying us."

"Perhaps he didn't know he was betraying you. Stop making assumptions and follow the trail!"

Tom sat bolt upright. "The cartridge! Good night! I brought the relay onto the grounds myself—in the cartridge!"

Rita pointed her pen at Tom in condescending approval. "They do say anything can be micro-miniaturized these days."

"Okay," murmured Tom, ruffling his fingers through his spiky crewcut. "The cartridge had a relay circuit of some kind. And I spoke to my father by televoc about moving the launch site to our Florida facility, giving them a target for that first torpedo strike." Tom ruefully thrashed his head side to side.

"Ah me, but nobody's perfect," said Rita. "I'll write my article in a way that won't embarrass you or the company."

Tom nodded and rose to his feet. "I'll be going now. I think we've both got enough information."

She nodded back. "Yes, I think so. Goodbye, Tom."

Tom stood silently for a second, looking at her. Then he said in reply, "Doss vedanya."

She raised her eyebrows. "Is that Russian?"

He stood unmoving in front of his chair, a slight smile on his lips, studying her.

"Russian," she said thoughtfully. "A guttural language. I've come to find it ugly."

"Bad memories?" Tom asked.

"Try living there, in Russia," she said, pausing to light another cigarette. "Try being born there, under the Soviets. Perhaps things are better now. Ten years ago, it was all black-marketeers and thugs."

Tom settled back down in the chair.

"Of course my husband was both, you know," she continued. "I myself profited in the end."

"Your American accent is flawless."

"Thank you, Thomas. I worked so very hard." She looked at him piercingly. "And I did nothing wrong, you know. I changed my name legally, for legitimate business reasons."

"I don't call piracy a legitimate business, Miss Ozkhodskaya."

"Please, I was not involved in any piracy. Robbery, very well, yes. Not piracy."

"The authorities may feel otherwise," said Tom. "The gang attacked nine ships by submarine, sinking one, stealing valuables, kidnapping Hank Sterling, endangering lives. I'm not sure whether you were in charge or not, but you clearly knew what was going on, and you didn't come forward. That makes you culpable."

"But you're so very wrong, young man. Shall I tell you how?"

"Please."

Her gaze radiated calm arrogance. "As you know, I took a certain picture with a powerful undersea camera. I thought I saw in it traces of the ancient civilization I was seeking. I tried to assemble a company to explore that area of the sea bottom, but no one thought it was genuine—not enough to put money into it, at least.

"I might have given up but like you, Tom, I do not give up easily. Through my contacts from the old days I learned of poor Herman Chilcote, nursing his grudges in the Caribbean. With the small remainder of my fortune, I provided Herman with the means to finally complete what you call his 'pulsator.' He wished to do various nonsensical things with it, but I reined him in, you see. Perhaps I was wrong to dangle before him promises that I had no intention of keeping, but I remained focused on my goal.

"For some time I kept track of passengers who traveled in the Gulf of Mexico, noting their precise routes. Out of thousands there remained only a few dozen, and from that number, only nine who made a second ocean voyage that met my criteria as to time and place.

"Not one of those ships was ever attacked by submarine. Instead, some of the passengers in each case were employees of mine—trusted criminal types, you might say. They brought the blackout machine on board the ships in parts, in their luggage. Then they assembled the parts, activating the machine at the appointed moment."

Tom had been sitting, listening intently hand to chin. Now he interrupted. "Why weren't your cronies knocked out?"

"They took a little pill," she replied. "A sort of brain-inoculation. When everyone had lost consciousness—the range was originally about one-thousand feet, and the signal is quite penetrating—my agents would make some token thefts, to make the thing look legitimate. And then do you know what we did, Tom?"

"I do now," he answered. "You threw the items overboard, with the pulsator equipment." "Yes, in weighted sacks of netting. Why not? The paltry sums we could get for those stolen items were as nothing compared to the risk of creating a trail."

"But why did you sink the Nantic?" Tom demanded.

"Me? I did not sink anything! As we now know, it seems Herman was rather more clever than a mad genius ought to be. He arrived with his submarine, took off his men and your Mr. Sterling, and torpedoed the hull. Why? If you wish a pundit's insight, he intended to turn up the heat, energizing law enforcement and driving me deeply into hiding—which was indeed the result. But you see, I used my hiding to play the game against him, using you as a pawn, dear Tom. You are very trusting. Admirable. But in this world, foolish.

"Herman is not so trusting. He arranged the business with Rosello and the spy-relay as a side-venture. Do you think, just maybe, he did not trust me? You know, I believe he may have diverted a good part of the funds I provided him—enough to buy that old submarine and create his underwater base. I knew nothing about it. He played me for a fool, didn't he? Had I known that what lay upon the bottom was just a wrecked Soviet sub, not a lost city—"

"Then it would have been you, not Chilcote, who would have grabbed the uranium slugs."

"True. Of course. But I would merely have sold them, not used them against this adopted country of mine, the land of opportunity. Alas, my dear young genius, I knew of no deviation from my plan until Herman sank the last ship. At that point, of course, I knew I had been thoroughly betrayed."

"I don't think I'll feel sorry for you," Tom declared. "You could have come forward with useful information. They could have decided to kill Hank."

"Sorry," she said blandly. "Had to save my hide. You do understand."

Tom leaned forward now, his eyes blazing. "I can figure out the rest, the part you haven't said. You faked the attacks, endangered all those people, as part of your idiotic scheme to get me involved in using my jetmarine to scope out your 'lost city' obsession!"

The Russian regarded Tom coldly.

"Hardly idiotic. It worked, you know. My confidential sources—I do love this 'freedom of the press'!—told me you were preparing just such a trip even before that fount of pomposity Nemastov told you about the Vostok."

"But why didn't you just approach us directly?"

Aia Ozkhodskaya smirked. "I did. Seven years ago, through a representative. Your cautious, respectable father said he wasn't interested in such a thing. No doubt he's forgotten it. But you, Tom, are not half so cautious and respectable. And what did I do that was so bad? All in the cause of science, yes? The risk of a few lives, some sleepless nights—so? You know I am correct. In your own way you too are ruthless in your pursuits. And that is why, when I walk away with the small bag I keep packed and ready, you will not try to stop me. You will give me the six minutes I require to move on in my life. I don't need to pull out the little gun I have under this table, do I, Tom? You'll promise me my six minutes, I trust? Believe me, I know how it hurts to be on the losing

end. But this time, you must accept it. Really, you must."

Tom shrugged, sitting still.

"I am curious, though," said Miss Ozkhodskaya. "You would not have come here had you already known the truth. Was there some mistake, some little flaw, that came to you as we talked? Or did you merely guess at my identity on impulse?"

"Well, since you asked—Americans don't usually hold their cigarettes the European way, from underneath," he replied with a slight smile. "Though actually I didn't notice it, to tell the truth."

"Something else, then?"

He pointed to the ashtray on the endtable. "The cigarette butts. I've learned just enough to recognize Cyrillic lettering when I see it. Your favorite brand?"

"Hm! I have them imported," she replied. "Nothing else comes close. At any rate, I—" Suddenly she froze in mid-sentence.

There was a clamor of heavy footfalls on the stairs, a sound of many men approaching. Her eyes widened, glaring into Tom's.

"But you couldn't have called the cops on me, Tom Swift!" she hissed. "You entered this room not knowing who I was."

The young inventor gave an ironic shrug. "Follow the trail, ma'am."

"I watched your every move." She whipped her head around in fierce reaction to the sharp pounding on her apartment door, continuing, "You were sitting in front of me the whole time!"

She glanced back at Tom.

He was grinning slyly. His eyes glinted blue. The small pin, which he had unclipped from his collar and now held between thumb and forefinger, glinted silver.

"Gotcha!" he said.